DOCUMENT RESUME

ED 471 785 CS 511 592

AUTHOR	Barsema, Michelle; Harms, Louann; Pogue, Carol
TITLE	Improving Reading Achievement through the Use of Multiple Reading Strategies.
PUB DATE	2002-05-00
NOTE	83p.; Master of Arts Research Project, Saint Xavier University and SkyLight Professional Development Field-Based Program.
PUB TYPE	Dissertations/Theses (040) -- Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC04 Plus Postage.
DESCRIPTORS	Action Research; Family School Relationship; *Instructional Effectiveness; Primary Education; Reading Achievement; *Reading Improvement; *Reading Instruction; *Reading Strategies; Sustained Silent Reading
IDENTIFIERS	Accelerated Reader Program

ABSTRACT

This report describes a program for increasing primary students' reading achievement as indicated by scores on reading series theme tests, state standards achievement test scores, achievement test scores, report card grades, and students' involvement in reading. The targeted population consisted of primary elementary school students in a Midwestern, rural, middle class community. The problems of reading achievement were documented through data revealed on pretests administered to the targeted students. Analysis of probable cause data revealed that students exhibited a lack of achievement related to insufficient reading practice, poor fluency, choosing inappropriate reading materials, lack of motivation, disengagement with text, and poor role modeling. A review of solution strategies suggested by knowledgeable others, combined with an analysis of the problem setting, resulted in the selection of four major categories of intervention: an implementation of the Accelerated Reader program, increased sustained silent reading time, development of a buddy reading system, and establishment of a home-to-school reading program. Post-intervention data indicated an increase in the primary students' reading achievement as shown by a meaningful improvement of the Woodcock Reading Test scores, the state standards achievement test scores, the STAR reading test scores, and the pilot Snapshot of Early Literacy test. Appendixes contain a student reading log, a "Be a Star Reader" form, and a Reading Star chart. (Contains 68 references, and 7 tables and 3 figures of data.) (Author/RS)

ED 471 785

IMPROVING READING ACHIEVEMENT THROUGH THE USE OF MULTIPLE READING STRATEGIES

Michelle Barsema
Louann Harms
Carol Pogue

An Action Research Project Submitted to the Graduate Faculty of the

School of Education in Partial Fulfillment of the

Requirements for the Degree of Master of Arts in Teaching and Leadership

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

M. Barsema, L. Harms, C. Pogue

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Saint Xavier University & SkyLight

Field-Based Master's Program

Chicago, Illinois

May, 2002

CS 511 592

BEST COPY AVAILABLE

ABSTRACT

This report describes a program for increasing primary student's reading achievement as indicated by scores on reading series theme tests, state standards achievement test scores, achievement test scores, report card grades, and students' involvement in reading. The targeted population consisted of primary elementary school students in a Midwestern, rural, middle class community. The problems of reading achievement were documented through data revealed on pretests administered to the targeted students.

Analysis of probable cause data revealed that students exhibited a lack of achievement related to insufficient reading practice, poor fluency, choosing inappropriate reading materials, lack of motivation, disengagement with text, and poor role modeling.

A review of solution strategies suggested by knowledgeable others, combined with an analysis of the problem setting, resulted in the selection of four major categories of intervention: an implementation of the Accelerated Reader program, increased sustained silent reading time, development of a buddy reading system, and establishment of a home-to-school reading program.

Postintervention data indicated an increase in the primary students' reading achievement as shown by a meaningful improvement of the Woodcock Reading Test scores, the state standards achievement test scores, the STAR reading test scores, and the pilot Snapshot of Early Literacy test.

SIGNATURE PAGE

This project was approved by

H. Nancy Frakes, Ph.D.
Advisor

John W. Kleine
Advisor

Beverly Gulley
Dean, School of Education

TABLE OF CONTENTS

CHAPTER 1 – PROBLEM STATEMENT AND CONTEXT 1

General Statement of the Problem 1

Immediate Problem Context 1

The Surrounding Community 9

National Context of the Problem 14

CHAPTER 2 – PROBLEM DOCUMENTATION 18

Problem Evidence 18

Probable Causes 25

Solutions 26

CHAPTER 3 – THE SOLUTION STRATEGY 28

Literature Review 28

Project Objectives and Processes 46

Project Action Plan 47

Methods of Assessment 50

CHAPTER 4 – PROJECT RESULTS 52

Historical Description of the Intervention 52

Presentation and Analysis of Results 57

Conclusions and Recommendations 65

REFERENCES 70

APPENDICIES 75

CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

Many of the students of the targeted kindergarten and third grade classes exhibited below grade level reading achievement. Evidence for the existence of the problem included reading series theme tests, state standards achievement test scores, achievement test scores, report card reading grades, and teacher observations. This problem was also evidenced by an observed lack of participation in the Accelerated Reader program offered in individual classrooms.

Immediate Problem Context

Local Setting

The specific school in which the research was conducted had a student enrollment of 442 students from prekindergarten through fourth grade. The ethnic background of the students included 93.5% White non-Hispanic, 0.6% Black non-Hispanic, 5.6% Hispanic, and 0.2% Asian-Pacific Islander. Low-income students accounted for 23.4% of the total enrollment. The students in the school who were limited-English proficient made up 1.1% of the school population (School Report Card, 2000). The attendance rate for the school was 96.1%. The student mobility rate was 23.3%. Chronic truancy was not a problem at this school (School Report Card, 2000).

Kindergarten classes had an average size of 20.3 students. Third grade classes had an average size of 22.5 students. At this school 98.5% of students' parents or guardians had personal contact with the school staff during the school year. Personal contact included parent-teacher conferences, parental visits to school, school visits to home, telephone conversations, and written correspondence.

Faculty and Staff

The school had a faculty consisting of 27 full-time and 6 half-time certified teachers. Of these, three and one half were special education teachers. There was one teacher each for art, music, physical education, and learning center. The music teacher was shared with the elementary school in Community C. The physical education teacher was shared with the elementary school in Community B. The art teacher was shared with the elementary schools in all three communities. One full-time and one half-time Title I teachers served students in the building. One speech teacher was in the building full time and another speech teacher was shared with the upper elementary school in the district. The average number of years of teaching experience for this school was 15.1 years. Just over 50% of the faculty had earned a master's degree. There was one female African American teacher and two male teachers employed at this school. The average annual salary for teachers in this building was $45,288.

There were eight full-time extra support personnel. One of these extra support employees worked in the learning center. Other extra support personnel were involved in the flexible delivery system working primarily in classrooms with special education students who have individualized education plans (IEP). The extra support personnel also

helped in the cafeteria during lunch time, supervised students during noon recess, and supervised students before school.

The school had one male principal who had been with the district for 4 years, making him one of the most recently employed administrators in the district. His annual salary was $61,510, slightly below the district average for administrators. A secretary was employed in the school's office, and a nurse was available throughout the day. The school employed 2 full-time and 2 part-time cafeteria workers. A full-time janitor was at the school during school hours, and 3 part-time janitors worked outside of the school day.

The Facility

The school is a sprawling light brick one-story building initially constructed in 1964 with two wings and a large gymnasium-cafeteria that included a stage area. An addition was made in 1972, which added a learning center and eight classrooms. There are 26 full sized classrooms and 6 smaller rooms currently being used as special classrooms. The smaller rooms contain classes such as music, special education, and special reading. The walls in the building are painted cement block walls with asphalt tile floors in the two original wings and terrazzo tile in all entryways. The north wing, which is a 1972 addition, has carpeted floors throughout most of the rooms and hallways.

There were four sets of regular exits with additional exits possible through the gym area, library, and kitchen. A security camera was recently added at the front entrance. This entrance was the only one unlocked during the day.

The learning center was an open room divided into a library area with a circulation desk at one end, tables and chairs for student instruction in the middle, and a

computer lab with 25 computers at the other end of the room. All computers in the learning were networked to a main server that provided Internet service.

Classroom A

Classroom A was a special education room, a converted storage room with no windows. On one side of the length of the room was a blackboard and on the other side was a shorter board and a bulletin board. The floor was asphalt tile. A separate heater was in place at the back of the room. There was an open strip of six double fluorescent lights running down the middle of the room. Items in the room included a wooden teacher's desk, a computer desk, a Power MacG3, a printer, several bookcases, eight student desks and chairs, and two study carrels. This room was used as a resource room where individual or small groups of students met with the special education teacher for individualized help with assignments or for small pullout groups from the main classrooms.

Classroom B

Classroom B was an average-sized third grade classroom located in the north wing of the building. Directly across the hallway was the learning center's circulation desk, girls' bathroom, boys' bathroom, and a water fountain. This area of the building was a high traffic area because of the use of the bathroom and because of classes entering and leaving the learning center area.

The classroom had four windows located on the west wall that looked out on the asphalt parking area where buses loaded. Windows opened by pushing out, and there were no screens on them. There were shades at each window, which could be pulled to

darken the room for movies, videos, etc. A shelf ran the length of the wall with bookshelves underneath.

The south wall had a chalkboard and large bulletin board with tall wooden bookcases on either side. The east wall had a coat closet where students could keep coats, boots, book bags, etc. on hooks inside the closet. Doors to the closet opened into the classroom. Separate storage compartments were above the closet area. A sink with running water and a drinking fountain was beside the closet. There was a small counter space next to the sink with a drawer and cupboard below. The rest of this side of the room was closed closet or storage area.

The north end of the room was a movable wall that could be opened to the classroom next door. The four sections of the wall each had a chalkboard on them, which was used for bulletin board space and for displaying student work.

The room contained 20 desks and chairs for student us. All books and student materials were kept in the desks. Desks were usually arranged in pairs facing the south chalkboard. Students could easily move into small groups of three or four to do assignments and activities. Several other student desks were used for small group work or project areas. At the back of the room was a larger table used for group work. Five colorful plastic chairs were used around the table. The teacher's desk, wooden shelving units, and filing cabinets were also in the back of the room. The carpeted floor cut down on the noise level in the classroom and allowed for a more comfortable area for students to work on the floor when preparing group projects or reading together.

Equipment in the room included a Mac computer and a printer located at a desk station separate from the teacher's desk. This computer was used by both teacher and

students and was networked to the Internet. The room had large pull down maps of the United States and the world mounted over the chalkboard and bulletin board. A movie screen was also mounted over the chalkboard. An overhead projector was used often. A small library area containing primarily paperback books was located in one corner of the room. Many of the books had been categorized into small boxes or bins to indicate reading levels as defined by a computerized program. A director's chair was prominently located as the "reader's chair" where students share their own writings and the teacher read aloud. Since there was little solid wall space, doors of all the closets were used for displaying posters, student work, or word wall charts.

Classroom C

Classroom C was a kindergarten classroom located in the east wing of the original building. The floor was covered with asphalt tile and there were three rows of fluorescent lights. As one walked into the room, there was shelving to the left that held toys and games that the students used. To the right of the entrance was a tall metal cabinet that was used to store art and craft materials. The back of the cabinet was used as a magnetic wall to hold pocket charts where the children checked in each day. Another pocket chart that kept track of students that had jobs each week also hung here.

Upon entering the room, one would find the listening center and the writing center. There were two older computers for the children's use. There were various other centers spaced around the room, such as the kitchen center, book center, and rice center.

Six students could sit at each of the four tables in the middle of the room. One more table was used for teacher preparation and small group work. During story time the students sat on an area rug. A teacher's chair and an easel were used during this time. The

teacher's desk was located in the northeast corner of the room. In this area was a metal filing cabinet and plastic shelves for teacher's books. A newer computer was located on the east wall. This computer was available for teacher use and at specific times for student use. The southeast corner had two metal cabinets for storage.

A wall of windows on the north had shelving beneath it. Chalkboards covered three walls and one built-in cabinet for storage was located on the south wall. The bathroom was located in the southeast corner of the room with a sink and water fountain directly outside. There was one built-in cabinet for storage on the south wall.

The walls were covered with print-rich materials. These included number charts, days of the week charts, months of the year charts, last name cards, and a learning tree that showed specific alphabet letters students had learned. The student's coat and book bag hooks are in the hallway on the outside wall of the room.

Programs

Classes were offered to preschool through fourth grade at this school. There were two half-day preschool classes. There were three half-day early childhood classes. Four half-day kindergarten classes, four first, second, third, and fourth grade classes were taught in the building. Classes were also offered in physical education, art, music, learning center, and computers to grades one through four. Students were offered physical education and music classes twice a week for 30 minute periods. Art classes met twice a week for 30 minutes. Learning center and computer classes were taught in combination and met three times a week for 30 minutes each. Special classes for kindergarten students included art, music, and learning center. Title I classes and speech classes were scheduled throughout the day. First through fourth grade used a basal

reading series supplemented by big books, novel sets, and paperback books recommended by the reading series.

Several programs were offered at this school to encourage good behavior and to recognize students who exhibit good behavior. Monthly student recognition activities included scavenger hunts, board game days, kite flying, concerts, and a popcorn and movie days. These activities were held for students who met the guidelines established by individual classroom teachers. Each teacher communicated expectations and students who met or exceeded these expectations were eligible to participate in the activities.

A gifted consultant visited the building periodically to pull out and work with students who had been identified as gifted. A basic character education program was offered once a month by the elementary guidance counselor. The guidance counselor also worked with individual students on a referral basis.

A program was instituted to "Catch Students Being Good." Teachers and staff recognized the exceptionally good actions of students with a certificate, with a picture in the local newspaper, and with inclusion in a monthly drawing. The guidance counselor supported efforts to recognize students who displayed appropriate character traits with in-class instruction and with a weekly drawing. A grant-funded tutorial program was being offered to students with academic problems. Small groups of students met with a teacher after school once a week for tutoring in needed academic areas (School Improvement Plan, 2000).

The targeted school used a flexible delivery system in which problem-solving teams of educators and parents met to determine a need for educational modifications for students. These students might have been experiencing academic problems, behavior

problems, or both. Title I reading services were provided for students in first through fourth grades. Title I was available to students who demonstrated difficulty in reading and met qualifying criteria.

A very active parent organization has helped to sponsor many activities and programs. They have provided money to purchase a computerized reading program, playground equipment, supplementary funds for teacher supplies, assemblies, and shade trees for the playground.

The local Junior Women's Club has provided the school with the Reading is Fundamental (RIF) program. Students were presented with the opportunity to choose a paperback book three times during the school year.

Parent volunteers were used throughout the school. Parents helped in classrooms, read with children, did clerical work for teachers, accompanied classes on field trips, and worked in the library. Members of community groups assisted with monthly student recognition activities. Within the building there were peer tutoring programs and fourth grade students have had the opportunity to read to kindergarten and prekindergarten students.

The school's mission was to develop the uniqueness of each child: physically, emotionally, and artistically. Each child was to be provided the opportunity to become a responsible and productive member of society. To achieve this mission, the school worked towards a collaborative effort between students, parents, staff, and community.

The Surrounding Community

The community in which the target school was located was a small Midwestern farming community of approximately 4,250 people. The median age of the population

was 35.7 years. Twenty-one percent of the population were 65 or older. Residents of the community who were under 18 years of age made up 27.3% of the population (U. S. Census, 1990).

This community was 96.4% White, 2.8% Hispanic, 0.3% Black, and 0.3% Asian or Pacific Islander (U.S. Census, 1990). Adults residing in the community who were high school graduates or higher comprised 70.8% of the population. Seven percent of the population held a bachelor's degree, and 4.5% held a graduate degree (Association of Commerce, 1999).

Agriculture and agriculture related businesses play an important role in the economy of the community. Retail trade and manufacturing are the largest employment sectors. The unemployment rate was 3.2%, and people who were living in the poverty range made up 7.5 % of the population. The median household income was $43,436, and the median housing value was $73,617 (Association of Commerce, 1999).

The community had nine different churches, from Apostolic Christian to Church of the Nazarene, Church of Christ, and Faith Fellowship. There were Baptist, Presbyterian, Methodist, Catholic, and Lutheran. Religion was a very important part of life in this community.

There were 21 different clubs and organizations available and active in the community. These organizations included the American Legion and Veterans of Foreign Wars, Boy Scouts and Girl Scouts, 4-H, Lions Club, Rotary, Home Extension, and Junior Women's Club.

The Boys and Girls Club was a vital part of the community and organized many youth programs. The club had an activity building, which housed a small gymnasium. It

was used for organized youth programs, for dances, and social events. Basketball, volleyball, soccer, baseball, and softball programs were organized for preschool through sixth grade. A school bus dropped children off at the club after school for a variety of organized activities and homework help. The building had a computer and game room. The club sponsored community service groups for both junior high and high school youth. The building was connected to the community pool and had the locker room area and lifeguard station on the pool side. Two tennis courts were also located on the grounds around the club building. The Boys and Girls Club had units with similar programs in the two other towns in the school district.

There were several service groups such as the local parent teacher organization and a philanthropic foundation that helped to fund various community and school projects. The Junior Women's Club sponsored a community funfest in July. Activities, food booths, programs, and entertainment for all ages were offered in the downtown area.

The community had one nine-hole golf course with a clubhouse. There were three parks in the community. It also had fairgrounds with a quarter-mile dirt stock car track and a half-mile limestone track for horse racing. The local American Legion post owned and operated the fairgrounds and sponsored stock car races on Saturday evenings throughout the summer. A five-day agricultural fair was held in August at the fairgrounds. The community had a library that had several computers for use by the patrons. It was a member of an interlibrary loan system. Next door to the library was a museum that featured rotating exhibits.

The community had three medical facilities and a 24-hour ambulance service with emergency medical technicians on duty. The community's police department employed

seven full-time officers, and there were 30 volunteer firefighters in the fire department (Association of Commerce, 1999).

School projects and sports related activities were actively supported in the community. Local businesses, civic organizations, and booster groups all worked together to spearhead projects and work toward completion of these projects. Examples of this type of community support were evidenced in the building of an all-weather track at the high school. It was built solely by volunteer labor, materials, and private donations. Volunteerism was an important part of the way of life for members of this community.

District

The school district in which the problem existed was a unit district having grades prekindergarten through twelve. It covered a large two county area, and was a combination of three separate districts that were joined in 1986. There were a total of six different towns, which became the unit district. Community A was the largest town with a population of 4,250, Community B and C were smaller with populations of approximately 1,200 each, and the other three villages were much smaller.

Total student enrollment of the district was 2,121 students. There were three prekindergarten through grade buildings in the district, one each in Community A, B, and C. There was a combined fifth and sixth grade building and a junior high building, built in 1997, in Community B. The district's high school was in Community A. The yearly operating expenditure per pupil for the district was $6,105 (School Report Card, 2000).

The major racial-ethnic group in the district was White non-Hispanic which made up 95% of the total school enrollment. One percent of the district population was Black

non-Hispanic, 3.5% were Hispanic, and 0.4% were Asian-Pacific Islander (School Report Card, 2000)

Low-income students made up 23.3% of the district's student enrollment. Limited English proficient students who were eligible for bilingual education made up 0.4% of the district's student enrollment (School Report Card, 2000). The district had a 95.3% attendance rate, and the student mobility rate for the district was 12.4. The chronic truancy rate was 0.7% for the district (School Report Card, 2000).

The total number of certified teachers for the entire district was 144. Ethnic percentages for the teachers were 98.6% White, 0.7% Black, and 0.7% Hispanic. There were 26.3% male teachers and 73.3% female teachers. Of those teachers 63.3% held a bachelor's degree, and teachers with a master's degree or above accounted for 36.7%. The average years of teaching experience were 15.1 years. The ratio of pupil to teacher in the elementary school is 17.7 to 1. The ratio of pupil to certified staff was 13.3 to 1. The average salary for teachers in the entire district was $40,464 and for administrators it was $64,478. There were currently 5 building principals and a unit superintendent (School Report Card, 2000).

The district was a consolidation of three separate school districts, which were joined in 1986. Community C, one of the smallest of the former districts, had only a prekindergarten through fourth grade building at this time. Community C had always felt poorly represented compared to the other two communities because they each had at least two schools. There were many sports activities in both Community A and B, but none in Community C. This remained an issue that tended to come up in school board elections and voting within school board meetings.

Another related issue, which may have affected the entire district, was the possibility of reorganizing the placement of students at attendance centers. The smallest of the three main communities tended to have fewer students per classroom and more students with academic or behavior problems. The establishment of a low-income housing project may have resulted in more students with problems per classroom. Within that school were many classrooms with more than half of the students with individualized education plans (IEP) or student assistance team (SAT) plans. There were often 14 or 15 students in a class. This class size was viewed by the school board to be too small to be economically efficient.

Another issue had been that there was a considerable socioeconomic difference between Community C and the other two main communities. As a result the students from Community C have generally been ostracized as they join students in the fifth and sixth grade upper elementary building. It was not just the fact that these students did not dress as well, but there was a stigma associated with many students from Community C. The school board was considering a move toward attendance centers. This move might reduce some of the negative attitudes toward Community C and the prejudice toward these students.

National Context of the Problem

National concern for reading achievement has been an issue for educators and policy makers for several decades. As far back as the 1970's, states began to establish competency levels for reading. At this time states also began publicizing school achievement information, and the National Assessment of Educational Progress was established to report on student reading achievement. In the report, Becoming A Nation

of Readers, the authors stated that when comparing reading achievement with other countries, U.S. students ranked at or below the international average. While the authors of the report cautioned against international comparisons, they saw this international ranking as a "wake-up call" to educators to improve reading instruction (Anderson, Heibert, Scott, & Wilkinson, 1985). These same authors were concerned whether current generations would be literate enough to meet the demands of the technological information age where increasing levels of literacy would be required.

Many have written that reading is at the center of all learning and that reading success or failure during the early years has a significant impact on the rest of a student's life. President Bush, in the publication No Child Left Behind, contends that there is a genuine national crisis because of a growing division between those in the nation who can read and those who do (United States Department of Education, 2001).

The 1991 Gallup survey indicated that Americans were reading less now than they did in the 1970's. Anderson, Wilson, & Fielding (1988) found that fifth grade students read only an average of 14.8 minutes per day. Watkins and Edwards (1992) reported that the average adult only about 20 minutes a day.

Researchers have also pointed out that those students who were classified as hesitant readers were not just the poor readers, but included many capable readers as well. These researchers contended that other diversions competed with the interests of children and that reading was low on the list of spare time activities (Moser & Morrison, 1998). In fact, one report suggested that children spend nearly 180 minutes watching television each day (Watkins & Edwards, 1992).

Cunningham and Allington (1999) reported that poverty is one of the most pervasive factors in determining if a child will be at risk for reading difficulties. They pointed out that the number of children living in poverty in this country rose from 16% in the late 1970's to 25% to date. With this rise in poverty, the researchers would project that there will be even more children who will be at risk for academic failure unless classrooms are created where all children learn to read and write. As many as 70 to 80 percent of students in some inner-city schools and 30 percent in some suburban schools are unable to read and understand grade appropriate material (Honig, 1997). Nearly 70% of inner city fourth graders are unable to read at a basic level on national reading tests (United States Department of Education, 2001).

Federal and state funding has been suggested to be used to implement research based prereading programs in existing preschool and Head Start programs. President Bush has called for action from the Congress to provide funds to ensure the goal that every child can read by the third grade. Action by the state board of education also called for every student to meet the state learning standards for reading as measured by the state reading assessment, and to perform at or above national averages on national measures of reading ability. To do this, current research suggested the teaching of foundational skills during beginning reading instruction. Then students must be taken beyond these foundation skills to apply these skills to respond to literature, read informational materials, use reference materials, interpret visual and graphic displays, and evaluate informational sources.

National Assessment of Educational Progress results suggested that what it means to be a competent reader has changed dramatically and that educators must raise the level

of daily literacy instruction. Basic proficiency requires thinking that goes beyond recalling literacy information. Classrooms where children engage in huge amounts of reading and where instruction focuses on thinking and responding to what has been read are those where a larger number of readers are attaining the basic proficiency levels (Cunningham and Alllington, 1999).

One of the biggest problems facing much of America today is the level of literacy skills. According to the 1993 Survey of Adult Literacy, nearly half the adult population has such poor skills that they would have difficulty reading a train schedule, writing a letter of complaint, or figuring the best deal on an item. This problem is becoming greater each year and does not appear to be improving. These illiterate adults are "more likely to be unemployed, on welfare, or in jail than their fully literate peers" (Palmaffy, 1997, p. 34). Improving the reading skills of students must be a top priority of all teachers throughout the nation.

CHAPTER 2

PROBLEM DOCUMENTATION

Problem Evidence

Reading achievement by students in the targeted school was considered to be an area that needed improvement to meet district goals and standards. Teachers, the building principal, school board, and many parents expressed concern over reading achievement. Pretest measures administered by the researchers included the AGS Early Screening Profile, The Illinois Snapshot of Early Literacy (ISEL) pilot test, the Accelerated Reader STAR test, and the Woodcock Reading Inventory. Researchers administered these pre-test to one targeted kindergarten classroom of fourteen students and one targeted third grade classroom of nineteen students. Two researchers work within the same third grade classroom.

Researchers studied the results of the Stanford Achievement Tests in three areas: word recognition, reading comprehension, and total reading. State achievement test scores were compared over a four-year period. Reading series theme test scores were reviewed.

Researchers analyzed the use of the Accelerated Reader in the classrooms and the participation by the students in this program. Interviews were conducted with the building principal, the remedial reading teacher, the language arts committee chairman, and classroom teachers.

The AGS Early Screening Profile and the ISEL were given to students of the targeted kindergarten classroom during the first two weeks of school. Subtests of the ISEL that were

studied by the researchers included alphabet recognition, story listening, and word recognition. Results of this test showed one-half of the students scored below 50% correct on alphabet recognition, 38% answered less than half of the questions correct on the story listening, and 69% of the students answered less than half of the questions correct on word recognition.

The AGS Screening Profile was used to screen for school readiness. Researchers analyzed primarily the cognitive language profile to get a reliable measure of the targeted students' development in this area. Fourteen of the sixteen targeted kindergarten students (88%) scored within the average range.

The Woodcock Reading Inventory was administered to the targeted third grade students during the first two weeks of school. Data obtained from three subtests were analyzed: word identification, word comprehension, and passage comprehension. The school board had set a standard of having 85% of its students reading at grade level. Results of this test indicated that the goal was not being met in the targeted classroom. Twenty-six percent scored at grade level, and 48% scored above grade level in word identification. Most of the students appeared to have adequate decoding skills. Results of the word identification subtest showed that 26.3% of the targeted third grade students scored below grade level. The word comprehension subtest showed that 41.6% of the targeted third grade students scored below grade level; 31.6% scored at grade level, and 26.3% scored above grade level. This shows that the targeted students may be able to decode the word, but not necessarily understand it. On the passage comprehension subtest, 47.3% scored below grade level; 31.6% scored at grade level, and 20.5% scored above grade level. This research indicates that nearly half of the targeted third grade students had difficulty understanding what they read. A summary of this data is provided in Table 1.

Table 1

Woodcock Reading Pretest

Percent of third grade students scoring at each grade level

Grade Equivalents	Subtests		
Levels	Wd. Ident.	Wd. Comp.	Passage Comp.
1.5 - 1.9	0%	5%	0%
2.0 - 2.4	0%	5%	26.30%
2.5 - 2.9	26.30%	31.60%	21.00%
3.0 - 3.4	26.30%	31.60%	31.60%
3.5 - 3.9	10.50%	15.80%	10.50%
4.0 - 4.4	21%	5%	0%
4.5 - 4.9	10.50%	5%	5%
5.0 - 5.4	0%	0%	0%
5.5 - 5.9	5%	0%	0%
6.0 - 6.4	0%	0%	5%

Researchers examined data obtained from the STAR Reading Test, the beginning component of the Accelerated Reader program. This test was administered to the targeted third grade students in order to obtain their correct reading level. As shown in Table 2, 53% were below grade level when compared to other students nationally.

The test consisted of a series of stories and comprehension questions at increasingly more difficult levels. The students progressed through these stories and questions until they reached a level that was considered frustration or too difficult for them. The test was programmed to determine a range of reading levels appropriate for the individual student. Students were

supposed to read Accelerated Reader books in their range and would then be able to pass comprehension tests on books in that range.

Table 2

STAR Reading Pretest - Third Grade Scores

Percent Distribution of Grade Equivalent Scores

Grade Equivalents	% Students	# of Students
1.5 - 1.9	26%	5
2.0 - 2.4	16%	3
2.5 - 2.9	11%	2
3.0 - 3.4	21%	4
3.5 - 3.9	5%	1
4.0 - 4.4	5%	1
4.5 - 4.9	11%	2
5.0 - 5.4	0%	0
5.5 - 5.9	5%	1
		19 total

The STAR test was administered at the beginning of third grade, so students scoring at anything below 3.0 were considered below grade level. There were ten students who scored below grade level out of a class of 19 students in the targeted third grade (52.6%). Four students

fell in the grade level or slightly above range (21%). Five students (26.3%) scored above grade level.

Results of the Stanford Achievement Tests taken by the targeted third graders were analyzed in the areas of word recognition, reading comprehension, and total reading. When comparing the percentile rank scores of the targeted students, seven of the targeted 18 students (38.8%) were found to have a total reading percentile rank score at or below the 49th percentile. Eleven of the targeted third graders (61.1%) scored at or above the 50th percentile. A summary of the test results is shown in Table 3.

Table 3

Stanford Achievement Test Scores - Percentile Rank

	Number of Third Graders Scoring at each Percentile Rank			
Subtests	Wd. Recog	Rdg. Comp	Total Rdg.	Percents
Below 25th %ile	3	4	3	16.70%
25th - 49th %ile	5	2	4	22.20%
50th - 74th %ile	5	5	3	16.70%
75th % ile & up	5	7	8	44.40%
	18 Total	18 Total	18 Total	

The state reading test scores were examined to determine a pattern in the district for a four-year period. As shown in Table 4, the percentage of students in the "does not meet" category grew considerably in three out of the four years. In 1997-98 there were 16% of the students in the "does not meet" state standards category from our third grade scores. In the

following year, 20% were in that category, and in 1999-2000, the "does not meet" category increased to 37%. Last year (2000-2001) still had 24% in the "does not meet category." In the last year, there were still only 77% of the students who met or exceeded state standards. During an interview, the building principal expressed concern over the number of students not meeting the state standards. He felt the results fell short of the district goal.

Table 4

State Reading Test Scores

Years	D. N. M. *	Meets	Exceeds
1997-98	16%	66%	18%
1998-99	20%	55%	27%
1999-00	37%	46%	17%
2000-01	24%	55%	22%

* Does Not Meet State Standards

A number of reading theme test scores were reviewed. Reading skills sections of the theme tests that were used consisted of the reading strategy subtests, the comprehension subtests, and the word skills subtests. The reading strategies subtests involved short answer prediction questions. The comprehension section included both short answer and multiple-choice questions, while the word skills subtest consisted of only multiple-choice questions.

Reading series theme tests are one measure that the district language arts committee uses to plan for Title 1 eligibility and in planning reading improvement programs. Theme tests are given throughout the year and scores were averaged to determine a pattern. Of the theme test

scores reviewed, 17% of the students scored in the 92% -100% (A) range, 25% scored in the 83% - 91% (B) range, 50% scored in the 74% - 82% (C) range, and 8% scored below a C average.

Report card grades in reading did not show a particular problem. Parents were interviewed about their views of reading report card grades. Many expressed that a grade of C in reading would be an area of concern for them. They would be in contact with the teacher to discuss the reason and would expect the student to improve the grade. Teachers interviewed rarely gave lower than a C. When students showed signs of dropping below a C average, they would often be referred for extra help in Title 1 classes or to a student assistance team for extra classroom support. Yet, the grade equivalent scores on the pretest measures showed below grade level results.

Researchers looked at Accelerated Reader participation during the previous school year. The program was available on computers in all classrooms. Teachers allowed only marginal time during the day for sustained silent reading. No teacher allowed more than twenty minutes daily for students to read books of their choice. Reading AR books was encouraged mainly when students had finished assignments. Most of the reading was done at home.

Of the targeted third grade students, one took no tests during the year. Another student read and passed only one AR test all year. Four of the targeted third grade students read and passed tests on fewer than ten books. Of the targeted third grade students, one-half read and passed the tests on less than one book per week. Only 22% of the targeted third grade students read and passed tests on more than 30 books. It appeared that the greatest majority of students, 78%, read less than one book per week. Targeted third grade students read a total of 485

Accelerated Reader books throughout the previous year. Of those books read, 81% of the tests for those books were passed at a score of 70% or better.

Probable Causes

The targeted school demonstrated a need to make improved reading achievement a priority for its students. Teachers, parents, and administration agreed that reading was a skill that affected all areas of learning and was a necessary life skill.

Richard Allington (1977) asked the question, "If they don't read much, how they ever gonna get good?"(p. 57). Allington contended, "...to become a proficient reader, one needs the opportunity to read"(p. 60). In an informal survey he found that while a variety of instructional techniques and materials were used, students were doing very little reading. Teachers were letting isolated skills instruction become the primary focus of instruction. The poorest readers were often the students receiving much skill instruction with the use of flashcards, worksheets, and other instructional techniques in isolation, while not spending sufficient time actually reading.

Another possible reason for below grade level reading achievement may be that students have not developed sufficient fluency and automaticity in reading. Biemiller (1978) suggested that reading rates may be the result of poor readers reading less and are therefore exposed to fewer instances of the various orthographic structures that make up the English language. Samuels (1988) stated that one of the main ways to help poor readers become automatic at decoding and word recognition was to "...provide time to practice so the skill becomes automatic"(p. 759).

A consensus of the teachers interviewed in the targeted school felt that parents did not spend adequate time at home practicing reading with their children. Research by Greaney (1980)

found that only 5.4% of leisure time was spent on reading by fifth grade students. He also found a positive relationship between the amount of time spent reading at home and reading achievement of elementary students. Anderson, Wilson, and Fielding (1988) reported on a study of the relationship between how children spend their time out of school and reading achievement. They found that time spent reading at home was the best predictor of reading gains from second to fifth grade. Students, therefore, needed to increase the amount of time they spent practicing reading at home, especially in the form of oral and assisted reading. Parental involvement helps children learn more effectively (Anderson, 2000).

Solutions

Reading practice needs to be challenging, but successful. It is important that the level of books used for reading practice is not too difficult or easy for the reader. To become automatic with a sufficient vocabulary, the practicing reader needs exposure to less frequent and more difficult words in meaningful context. Students cannot become proficient readers if they are reading books much too easy or much too hard for them. Researchers were concerned that students were choosing books that were not challenging them in exposure to new vocabulary and concepts. Difficult books were frustrating them, causing a dislike for reading. They should be encouraged to read in what Paul (1996) refers to as the zone of proximal development, "...the reading level at which reading practice will promote maximum development." (p. 10)

Teachers have been reading aloud to students for many reasons including introducing them to the pleasures of reading and for instructional purposes. Many times the read aloud model relegates listeners to a passive role and discussions are held after the reading. The researchers were concerned that students needed to be more engaged with the text so that they could learn how meaning is constructed and to explore the reading process. Barrentine (1996) felt that stories

that were read interactively encouraged students to learn how stories work, how to monitor comprehension, and what to think about as the story progresses. Strategies are taught through demonstration. These demonstrations model for the students the kinds of interactions they should be having with their own texts as they read.

To increase the reading achievement of students in the targeted classrooms, several issues needed to be considered. More time during the school day needed to be used to practice reading and to improve automaticity. Students should be encouraged to practice their reading skills orally at home. To promote maximum reading development, teachers must guide students toward reading books that are at an appropriate level. Students need to become more engaged in the reading process to monitor their comprehension and learn how stories work.

CHAPTER 3

THE SOLUTION STRATEGY

Literature Review

Educators have been arguing, debating, and researching instructional methods for teaching reading for decades. All throughout educational history, educators have proposed theories or methods that were to be the answer to all reading problems and would teach all children to read. The literature was filled with ideas on instructional techniques, strategies, and programs for teaching reading. One could never exhaust the vast amount of studies related to reading methods and issues of effective education. Educators did not doubt that good instruction was absolutely necessary in helping children learn to read.

Many in the field of reading concurred that there was no simple solution. Children come to school with different personalities, backgrounds, abilities, and learning styles. People continued to look for the one best way to teach reading without taking into account all of these differences in our classrooms (Cunningham & Allington, 1999). Hundreds of thousands of dollars have been spent on research to help find the best approach to teach reading. Those results were inconclusive in finding a best approach. A study by Bond and Dykstra concluded that a combination of approaches worked better than any one single approach (as cited in Cunningham & Allington, 1995). A study by the National Reading Research Center on the practices of regular and special education teachers considered to be highly effective by their supervisors found that these teachers, " ... reported a great balance in the instruction they offered to students"

(Wharton-McDonald, Rankin, Mistretta, Ettenberger, 1997, p. 519). Some effective teaching practices were teachers' modeling of literacy skills, daily practice, and individual participation by students. Skills prerequisite to reading, such as letter-sound associations, decoding strategies, phonics, vocabulary, and comprehension strategies were taught both in context and in isolation. Various types of reading were used such as shared reading, students reading aloud to others, choral reading, daily silent reading, and reading with parents. The explicitness and extensiveness of the instruction varied with the ability of the reader. The weaker readers were offered more of the same instruction as stronger readers. With this in mind and after searching the literature, several theories began to dominate. These theories were all related to the goal of improving the reading achievement of at-risk students in regular classrooms.

One of the great debates throughout the history of reading instruction has been the effectiveness of intensive phonics teaching. Phonics has been identified as an alphabetic approach. Children learn the letters and the sound-symbol relationship required to form words. Educators believed instruction in phonics was important because a beginning reader must figure out how the alphabet works. Research has shown that directly teaching the letter-sound system speeds up literacy acquisition (Cunningham & Allington, 1999). Many researchers have recommended phonics as an important part of teaching reading.

Studies done by Chall prior to 1965 indicated that an emphasis on learning the printed code for spoken language produced better results during beginning reading instruction at least through third grade (Fulwiler & Groff, 1980). Dykstra also studied the research both before and after 1965 and concluded that when children received intensive phonics instruction in the early stages of reading, they developed better word recognition skills and therefore had the skills necessary to become independent readers (Fulwiler & Groff, 1980).

Evidence indicated considerable time should be given over to the, "... explicit and comprehensive development of beginning readers' phonics skills..."(Groff, 1998, p.139). When children figure out the letter-sound system, they have the ability to decode. They apply meaning to signals, which enables them to figure out pronunciations for the words they see in print (Lapp & Flood, 1997). In fact, some researchers felt that decoding skills were a necessary prerequisite for comprehension and skilled reading. Research evidence pointed to the fact that skilled readers were so good at decoding that they did not need to use context to help them in the process (Samuels, 1988).

Samuels (1988) theorized that when teaching decoding skills, teachers should work towards the goal of accuracy in word recognition. Skilled reading also required that accuracy be followed by an automatic stage. A fluent reader developed both accuracy and automaticity. That meant the reader was automatic, needing to use little effort or energy to recognize a word. This left the reader's mental energy free to comprehend what was being read. One of the first things a teacher had to do to develop this automaticity was to instruct students in the decoding skills needed to become fluent readers.

Research done by Stanovich in 1986 found that children who started acquiring decoding skills slowly, rarely became strong readers as they went through school (as cited in Lapp & Flood, 1997). Another study by Juel in 1988 found that when students experienced an early acquisition of decoding skills, it led to wider reading both in and out of school (as cited in Lapp & Flood, 1997).

Students needed to become automatic in pronouncing and recognizing words. This ability depended on knowing how to use the alphabetic system to decode words. Research stated that,

"...equipping each child to decode simple words should be a major goal of kindergarten and early first grade reading instruction" (Honig, 1997, paragraph 10).

After examining the research, Groff (1998) concluded that the more phonics information children were taught, and the better they learned to apply it to the written word, the better the beginning reading achievement would be. According to Honig, "...first grade decoding ability predicts 80 to 90% of reading comprehension in second and third grade and still accounts for nearly 40% of reading comprehension by ninth grade"(1997, paragraph 10). Honig (1997) recommended an organized and systematic phonics curriculum to teach students how this alphabetic system works. He called for curriculum that would include teaching enough of the letter-sound correspondence so that students would become automatic with a number of words. They would need to develop proficiency in word attack skills and practice these new skills in decodable text where about 1 in 20 words needed to be figured out.

Many educators did agree that a student's acquisition of phonics skills is an essential part of reading development (Groff, 1998). Samuels (1988, p. 758) reported that, "Everyone seemed to agree that beginning readers needed to learn decoding skills." However, great controversy remained about how and when to teach these skills. Not all educators or researchers agreed with the intense, sequential, comprehensive phonics training.

Cunningham and Allington (1999) examined the research and found no conclusive evidence on what sort of phonics lessons should be taught or how long the lessons should last to develop the needed skills in students. They also found that research did not agree on what order letters and sounds should be taught or what approaches should be used. Well-planned instruction based on student needs was more effective than random instruction.

Goodman and Goodman (1979) proposed that learning to read is natural, and students learn to do it in the same way as they learn to speak and listen. They also believed that reading instruction needed to create and enhance conditions that would allow the student's natural competence to take over. Goodman and Goodman saw both oral and written language as learned in the same way. "In neither case is the user required by the nature of the task to have a high level of conscious awareness of the units and system"(1979, p.139). Goodman and Goodman also theorized that students build from whole to part. They concluded that, "...nonproficient readers showed problems in getting it all together. They tended to bog down in preoccupation with letters and words and lose meaning"(1979, p.148).

Johnson and Louis (1990) theorized that breaking reading down into skills destroys the meaning of reading because each word in a text obtains meaning from the words around it. Harste, Woodward, and Burke (1984) have demonstrated in their research that students have all the strategies necessary to continue their development of language. They believed that invasive intervention or sequencing a set of skills would not cause reading to occur. There was no order in which patterns would be attended to, but rather the student would determine the usefulness of each pattern. Harste (et al., 1984) felt that students needed environments that encouraged them to use their existing learning strategies. They also theorized that students should first interact with the complete text. Attention to ideas, sentences, and continuing smaller units would follow. Constant and repeated demonstrations were at the heart of good instruction.

Lapp and Flood maintained that phonics instruction, "... should not occur in isolation from books"(1997, p .699). Research by Carbo (as cited in Lapp & Flood, 1997) found that many emergent readers do not have the ability to learn through analytic and abstract experiences.

They would learn better by use of the whole to part experiences gained from reading whole books together as a class and phonics lessons should follow later.

Whole language has many components and has been around for over 60 years. Daniels, Zemelman, and Bizar (1999) found whole language was generally composed of reading aloud daily, using classic children's literature, structuring independent reading, using interdisciplinary themes, higher level thinking, teacher-student conferences, collaborative groups, modeling, and self-assessment. Other names for the methodology include literature-based instruction and constructivism. Spin-offs from the ideology of whole language include Reading Recovery, story mapping, webbing, sustained silent reading (SSR), journaling, and perhaps even Accelerated Reader (Daniels, et al., 1999).

Thompson found that many schools in the late 1930's opted to use real children's literature instead of the commercial basal programs popular at that time (as cited in Daniels, Zemelman, & Bizar, 1999). The basal programs were generally subskill-oriented, while the literature-based programs encouraged children to use wide independent reading. Thompson's summary of 40 different studies comparing the two types of programs, basal and literature-based, showed that over half favored the literature-based programs, and 15 showed no significant difference in achievement. Research findings by Tunnell and Jacobs (1989) showed a pattern of gains in achievement in the whole language and literature-based programs in the last 20 years. These gains showed across the board, including students in regular classrooms, special needs students, low socioeconomic background students, and even those who had English-as-a-second-language needs.

A study by Weaver was later published in a book (Weaver, Gillmeister-Krause, &

Ventozogby, 1996). In this study Weaver found that students in whole language programs did as well as students in phonics and skills-based programs on standardized reading tests, developing skills in punctuation, grammar, spelling and vocabulary. This was attributed to learning these things in context, not in isolation.

Bracey (1998) reported that in Sachs and Mergendoller's 1997 study, whole language seemed to work better with the lower level students because they were lacking in the basic emergent literacy skills such as reading from left to right, print conventions, and expectations about the nature of reading. This study took place in kindergarten and also seemed to lean toward lower level readers needing whole language because it was more engaging and interesting to those who were not really that motivated. Sachs & Mergendoller believed that the more capable students could benefit from the phonics-oriented classroom because it concentrated on mastery, practice, and the ability to automatically perform certain specific skills.

Drecktrah and Chiang (1997) noted that Stahl and Miller found that whole language approaches were more appropriate in kindergarten than in first grade. They also believed that whole language approaches would be better for word recognition than for comprehension. Another philosophy that Stahl and Miller espoused was that whole language was not as effective with disadvantaged students. This seems to be in direct contrast to the study by Sachs and Mergendoller. A possible explanation might be that the Sachs' study took place only in kindergarten, while the Stahl and Miller study also concentrated on initial reading instruction in first grade.

Harris & Graham (1993) espoused an integrated approach. Since children come to school at many different levels of experience, readiness, and ability, no method works with every child.

Many teachers at various grade levels combine skills instruction, phonics, and whole language into an eclectic approach for reading instruction according to Drecktrah & Chiang (1997).

The family connection of teaching reading has a long history. The earliest findings of education in the United States showed that teaching reading began in the kitchen. It has even been shown through paintings of the seventeenth and eighteenth century of storytellers telling stories and pointing with a stick to text written on a board.

Parental involvement in reading was found to be an important factor in the ability to teach reading and read fluently. Huey (1968) wrote, " ... the secret of it all lies in the parents' reading aloud to and with their children"(p. 332). These early recognitions about reading to children were ignored until the 1970's. This disregard and neglect was caused by the belief that literacy development did not begin until formal instruction was given in school.

Durkin (1974) summarized the traditional objections about reading before a child enters school: "...Preschool reading will be injurious to a child's vision; parents are not trained to teach reading; preschool reading leads to problems of boredom or confusion when school instruction begins" (p. 138).

Durkin (1966) also did research in the area of literacy development. She did a study to investigate what children's experiences before school lead to signs of acquiring literacy. Durkin concluded that being read to created an interest in reading.

For many years, teachers knew through their classroom experiences and results from research projects like Durkin's (1966) that the reading readiness programs were theoretically and practically inappropriate. It has only been since the late 1970's that the appropriateness of these programs has been challenged.

Researchers such as Clay, Goodman, and Harste reaffirmed the discovery process of emergent literacy in children (as cited in Wan, 2000). The idea has brought greater attention to the roles parents, teachers, and books play in the development of children's literature.

The research findings of Cullinan (1989), Donelson and Nilson (1989) and Huck, Helper and Hickman (1987) showed that children that are surrounded by books and supportive adults acquired literacy more quickly. Mass (1982) believed that literacy developed gradually in a natural environment, filled with good books, meaningful conversation and abundant writing materials. He stated that this happens before a child starts school. Teale (1981) suggested more naturalistic research should be done to see if there is any correlation between the styles used in literacy orientation through analysis of how children are read to. This knowledge may help educators provide reading and writing instruction that builds upon the foundation that a child brings to school as a result of the students socio-cultural experiences. Cochran-Smith (1984) supported Teale's (1981) statement and said, "... Patterns of story reading are cross-nationally and cross-culturally diverse." (p. 8)

Today there is still in need for more naturalistic studies to examine cross-cultural differences of reading aloud to children, especially those from families that speak different languages. These studies may help schools understand the variations of literacy orientations children receive at home and school.

Research documents the importance of reading aloud at home and at school. Louszides's study pointed out that a background of being read to during infancy has a positive effect on a child's choice to read independently in their leisure time (as cited in Wan, 2000). Becher also thought that being read to improved a child's receptive and expressive vocabularies, comprehension skills, sentence length, letter and symbol recognition, basic concept development

and interest in books. He also thought that reading to a child promoted a bond between parent and child and showed that reading is a valuable activity. Becher thought that reading promoted positive interactions among family members and made children aware of language patterns, expanded vocabulary, and served as a source of information from which children build knowledge about rules that guide the reading process (as cited in Wan, 2000).

Parent and family involvement in education benefits all participants. Anderson, Hiebert, Scott, & Wilkinson, (1985) and Morrow (1995) documented that family literacy practices foster a love and desire for reading. Research has shown that parent involvement benefits students of all ages, parents, teachers and schools.

The benefits of parental involvement for students include a higher achievement in reading, quality work, and a positive attitude toward school. Other benefits are improvement in student achievement, parental school support, and teacher morale improvement.

Many educators believed another critical factor involved in getting children to grow as readers was that students needed to spend lots of time reading (Gillet & Temple, 1990). Becoming a good reader required more than merely being able to perform isolated skills or read a series of words on a list. Practice was required to apply and transfer isolated skills to the reading process (Moore, Jones, & Miller, 1980). Allington (1977) reported on an informal survey taken to determine the number of words that the average student was reading, showed that the students were doing very little reading. Students read no more than 110 words during the lesson observed. He also theorized that the, "...ability to read fluently required the opportunity to read"(Allington, 1997, p. 58).

Greaney (1980) found after studying 920 fifth graders, the amount of time spent reading was positively related to reading achievement. Walberg and Tsai (as cited in Gillett & Temple,

1990) studied 2,890 thirteen-year-olds and found that frequency and amount of reading were related to reading achievement. Anderson, Wilson, & Fielding (1988) found in a study of 155 fifth graders that time spent reading and reading achievement were positively related.

Hoyt (2000) claimed research was very clear about the importance of independent reading and that teachers needed to provide substantial time for independent reading every day. A study by Anderson, Wilson, & Fielding (1988) found that time spent reading books was the best predictor of reading achievement in second through fifth grade students. Taylor, Frye, & Maruyama (1990) reported that their study of 195 fifth and sixth grade students supported the theory that time spent reading at school was significantly related to gains in students' reading achievement.

A study by Nagy, Anderson, and Herman found that students who read for at least 20 minutes a day, every day, could add 1000 new words to their vocabulary each year (as cited in Hoyt, 2000). In data collected by Topping and Paul (1999), student reading ability was strongly positively related to the amount of in school reading practice.

Ivey (2000, p.42) said that, "... the amount of time spent reading separated the successful readers from the unsuccessful readers." Students should be given time to read during the most critical instruction times and across the content areas where it counts the most (Ivey, 2000). Topping and Paul (1999) proposed that based on research by Leinhardt, if teachers added five minutes of reading a day, students would make additional gains in grade level equivalents. Topping and Paul (1999) also reported on a study done in New York State that showed the biggest difference between high and low performing schools was the large amount of silent reading done in the high performing schools. Allington (1984) found that extremely good readers read 150 times more words in a week than the poorest readers.

Sustained silent reading was developed as a component in various school reading programs, giving students the opportunity to practice reading. Hunt (1970) first popularized the idea that children should be given time to read during the school day. A fixed amount of time was set aside for silent reading of materials selected by the students. The time period would gradually increase as the students became involved and the program continued throughout the school year.

Cunningham and Allington (1999) recommended that second and third graders should spend at least 20-30 minutes each day reading from materials they have chosen. They further recommended that reading should be the only activity during this time and that the amount of time should be consistent and regular. To make sure that students were spending independent reading time in actual reading, Gambrell suggested that time prior to sustained silent reading be set aside for selecting reading material (as cited in Moore, Jones, & Miller, 1980). A study by Kragler and Nolley (1996) found that when students were given the opportunity for self-selection of independent reading material, 62% chose books at their independent reading level. Allington (1977) suggested that readers needed the opportunity to be placed in materials they can read fluently in order to develop fluent and rapid oral reading.

A study by Gaskins (1998) found that when students who were reading two to five years below grade level were placed in a reading program designed to provide lots of reading time, they gained two or more years in basal reading levels during the two years they were in the program. These students were also achieving at or above the mean on standardized achievement tests. Another study compared a sustained silent reading model to that of a control group where no organized silent reading program was conducted. The results indicated that an organized

silent reading program made a difference in the reading achievement and attitudes of students (Manning & Manning, 1984).

Hoyt (2000) suggested that emergent readers needed independent reading time to handle books, make stories from the pictures, and be treated as fully engaged readers. They might enjoy reading a book together, talking about a book, or even acting out a story that was read to them earlier (Routman, 1991).

While time set aside for independent reading practice was shown in many studies to have a positive influence on reading achievement, there were some weaknesses reported in this approach. All students were not engaged in reading and spent little time during the reading period actually reading. This seemed to be especially true in students who were reading books at the wrong level, students who were unmotivated to read, or those students with learning disabilities. Methods needed to be developed to insure students were actually practicing reading text and getting the most from the practice time provided in class. Hoyt (2000) recommended teaching minilessons on how to choose a book that will keep the reader interested. She also suggested lessons on what happens during independent reading time and how students can employ reading strategies to help them become better readers. Truscott (1996) found that students were more likely to persist in challenging tasks if they know how to use a wide variety of reading strategies.

Moore, Jones, & Miller (1980) believed that the teacher should be required to read during the silent independent reading time and to end the time by reacting to what she read. In fact a study by McCracken and McCracken (as cited in Moore, Jones, & Miller, 1980) suggested that one of the major causes of failure of sustained silent reading was that the teacher did not provide a good role model.

Manning and Manning (1984) studied different models of reading practice and found that students who participated in peer-interaction models appeared to make the most gains in reading achievement. Slavin and Madden (1989) reviewed research on approaches designed to increase reading achievement to see what works best and found when students worked in small learning teams, they mastered the material better. Lee-Daniels and Murray (2000) also adapted the silent reading model to form pairs of students who were reading at a similar level. Once the students had read their books independently, they discussed information about what they had read. Moser and Morrison (1998) also used paired reading as a way to increase the time spent reading in the classroom and to increase reading achievement. Having the two students read simultaneously or having one student in the pair read orally while the other listened, helped increase the students' comprehension rate by 2.7 years. Truscott (1996) also found that modifying sustained silent reading by including pair reading strongly influenced both motivation and achievement. Dixon-Krauss (1995) found that students working in a paired reading situation improved in word recognition and in higher level thought processes involved in reading. The research suggested that students must discuss and respond to the books read as well as just "Drop Everything And Read"(D.E.A.R.) (Gillet & Temple, 1990).

Another component of sustained silent reading was to incorporate a time for sharing of material read. Moser and Morrison (1998) reported that student sharing of favorite books was a motivation for many students to try new books. It helped in self-selection of interesting, motivating reading material and expanded the variety of genres and authors read. Truscott (1996) also encouraged allowing time for the discussion of good books and providing time to write critiques or recommendations. Students would be able to use this information to choose

appropriate materials. Book talks by teachers to entice students to explore a wider range of materials and to provide guidance for self-selection, was recommended by Routman (1991).

Many researchers concluded that setting aside time for reading during the school day must become a priority for students and teachers and be viewed as one of the most worthwhile activities students can be doing.

Educators across the nation have been noticing a downward trend in students' reading skills in the classroom. These students were reading below grade level and had low self esteem and an extreme lack of motivation. For example, statistics showed the average high school senior spent the same amount of time reading as the average kindergartener. Educators saw the need to take charge and to introduce a program that would improve reading skills and interest students in reading.

This program was called Accelerated Reader and was developed in 1993. This program was designed to combine literary skills and the use of the computer to motivate students to read. The program adapted to students of different ages ranging from kindergarten to twelfth grade.

The first step in this program, depending on grade level, was the student was read to, or the student read individually. A teacher usually read to students at lower grade levels. This allowed the teacher to see what different views the students had about the same text. Students at higher-grade levels were given the freedom to choose what book to read. The STAR (Student Testing Assessment Reading) diagnostic test was given at the beginning of the year to determine each student's reading level. This allowed them to pick a topic of interest and a book that was in their comfort zone. This comfort zone has been also called "zone of proximal development"(Topping & Paul, 1999).

The second step was when the student took a multiple-choice quiz on the computer, which tested their comprehension of the book. The computer revealed the answers to the questions and rewarded points instantaneously. This type of reward gave the students detailed and timely feedback. Each book was assigned a certain amount of points depending on its difficulty. This allowed the students to have more control over their reading activity and amount of points earned. Therefore, they were encouraged to improve their reading level in order to receive more points.

The third step was when the teacher received immediate feedback on the student's progress. Teachers could check the student's results on the computer as soon as they had completed the quiz. This allowed the teachers to track their reading behavior through an analysis of their progression. Accelerated Reader enabled the teacher to make an early intervention and evaluation of the student's progress.

Overall, researchers and teachers have seen nothing but success from this program. Studies have shown, including the results from the Patterns of Reading Practice (Paul, 1996), that Accelerated Reader stimulated increased reading; which in turn led to greater academic success and improved attendance.

In conclusion, Accelerated Reader is a program that is helping students change their view about reading. It has been shown that students are reading more (McKnight, 1992; as cited in Toock, 1998). Accelerated Reader also improves self-esteem, motivation, and helps improve reading levels. This program not only helps students, but it helps teachers teach by watching their student's progress more closely.

Another program that correlated well with Accelerated Reader was a book buddy program. This has been described as a strategy in which students were paired up to share the

experience of reading. Usually the students were from different grades, such as fifth and first or kindergarten and third graders. The purpose of this pairing was to enable the older student to tutor the younger one and along the way to enhance his own reading ability. Normally the book buddy program consisted of the partners getting together for about 30 minutes once a week. Usually the older student held the book so the younger student was able to follow along silently as the "tutor" read the book aloud. Questions were asked and answered by both the tutor and the tutee (student being tutored), according to Block & Dellamura (2000-2001).

Some of the advantages to this program included good role models for oral reading, improvement in both comprehension and use of variant decoding strategies by both partners, an improved self concept for both, and much more of an interest in reading in general by both partners. One of the most important factors in this program was to match up the correct partners. This was up to the two teachers to figure out which temperaments would go best together. It was suggested by Berliner & Casanova to stick to the same gender partners in order for the best results, according to Chandler & Gibson (1998).

There were several different ways to set up book buddy programs. One method took place within a single classroom in which higher ability students were paired with lower ability students. Another possibility was to match an older classroom up with a younger classroom as already suggested. This was done several ways. Sometimes the older student practiced one particular book and then read it to several students in the younger class. The advantage was that enhanced practice probably improved his reading, but there would not be any strong attachment made between tutor and tutee, as noted by Chandler & Gibson (1998).

The persistent partnerships model matched students by gender and temperament for the length of the program. This enabled strong bonds to form between the partners and set the stage

for more improvements within each of the partners. It has long been known that one learns more by teaching than by being taught. This became apparent when one looked at the progress made by the tutor. However, the tutee probably paid more attention to the tutor than to his teacher because he was more his own age, was a role model, and probably explained things in his own 'lingo' say Block & Dellamura (2000-2001).

There were many benefits from the persistent partnership model according to Block & Dellamura. Tutors learned to select more appropriate books for their tutees, and they discovered what different strategies their buddies used and needed. Chandler & Gibson (1998) believed an essential part of the buddy system included direct instruction on prediction, questioning, and different decoding strategies. These would be taught to the older students and practiced and modeled to the younger ones.

Another aspect of the book buddies program, which seemed to be effective according to Block & Dellamura (2000-2001), was the extension into a writing program. After the students shared their books, they wrote or drew in journals, which they shared with each other. Other ideas included reflection forms dictated once a grading period, reading records with 5 to 1 star ratings, and strategies checklists that gave tutees hints about things to try and also kept a record of what worked. Partner or buddy reading helped the tutors improve their oral reading, especially the ability to change pitch, pace, and inflection. They sometimes even learned to use various voices to depict different characters. Block and Dellamura (2000-2001) believed that this increased the interest of the tutees in the books being read to them. Another plus for this program was the improvement in the self-esteem, pride, and positive feelings toward reading felt by the students being tutored and the tutors. The third group of people to benefit from this program, beside the tutors and the tutees, were the teachers. The students received one-to-one tutoring for

at least 30 minutes a week from someone that the student looked up to and wanted as a role model. For teachers to give this much individual attention to each student for every book that was read would have been almost impossible, according to Block and Dellamura (2000-2001). There seem to have been advantages for tutors, tutees, and even the teachers who participated in the buddy reading program.

After having researched whole language and phonetic strategies, the action researchers agreed that an eclectic approach combining the best of both methods would be the appropriate choice. Because the action plan involved a kindergarten class and a third grade class, the action researchers determined the strategies which would work with both classes included buddy reading between the two classes, silent sustained reading, Accelerated Reader, and a home-to-school reading program. All three action researchers fully believe in the phonetic approach, but also feel that it should be concentrated in first and second grades. Since the action researchers are combining kindergarten and third graders, the researchers believe the chosen strategies are the best combination for the emergent readers in kindergarten and those who have already achieved their basic reading skills in third grade. The action researchers will investigate the relationship between increased reading time and increased reading test scores.

Project Outcomes and Processes

As a result of the use of the Accelerated Reader program in the targeted kindergarten and third grade classrooms, the students will be able to select reading material in their zone of proximal development, increase reading practice time and increase reading comprehension.

As a result of the implementation of a Buddy reading program between the targeted kindergarten and third grade classrooms, students will increase reading practice using both

paired and repeated reading, gain positive reading experiences, and provide models for younger students.

As a result of a development of a home school reading program, students will increase reading practice time.

As a result of a sustained silent reading program, students will increase reading practice time and develop independent reading strategies.

As a result of these described interventions during the period of August 2001 to January 2002, the kindergarten and third grade students from the targeted classes will increase their reading achievement. This will be measured by the Illinois Snapshot of Early Learning (I.S.E.L) and the Cognitive Language Profile for kindergarten students. The STAR test and the Woodcock Reading Mastery Tests-Revised will be used for third grade students.

Process Statements

In order to accomplish the project outcomes, the following processes are necessary:

1. Develop a buddy reading system pairing third grade students with kindergarten students.
2. Develop a home to school reading program.
3. Establish the Accelerated Reader Program in each classroom.
4. Provide adequate blocks of time during the school day for sustained silent reading.

Project Action Plan

The teacher will:

Week 1

- Inform parents by sending home student consent forms with a friendly cover letter

- Pretest individual kindergarten students with the AGS Early Screening Profile
- Pretest individual third grade students with the Woodcock Reading Mastery Revised Form F
- Pretest individual third grade students on the computer generated STAR reading test

Week 2

- Continue pretest for all students
- Begin pretesting kindergarten on Illinois Snapshot of Early Learning (I.S.E.L.)
- Begin compiling scores to determine baseline information on student reading levels
- Introduce Sustained Silent Reading time to all targeted students
- Introduce D.E.A.R. time to kindergarten students
- Provide third grade students with daily reading log

Week 3

- Finish pretest on kindergarten students using I.S.E.L.
- Finish compiling baseline scores for reading levels.
- Introduce Accelerated Reader program to third grade students.
- Begin to read books in student's zone of proximal development and take tests.
- Begin reading Accelerated Reader books to kindergarten students.
- Organize students to take Accelerated Reader tests on book read in class.
- Introduce buddy reading program to third grade students.
- Select books to read to kindergarten buddies.
- Practice reading buddy books individually and with partners. (3rd graders)
- Read first buddy book to kindergarten buddy. (3rd graders)
- Continue SSR daily

- Continue D.E.A.R. time daily
- Prepare parent information and recording forms for home-school reading program

Week 4

- Continue Accelerated Reader program
- Continue SSR daily
- Continue D.E.A. R. time daily
- Choose a new buddy book, practice, and read to kindergarten buddy
- Introduce home to school reading program
- Send home letters and recording forms for home to school reading program
- Establish Accelerated Reader goals

Week 5

- Continue Accelerated Reader program
- Continue SSR daily
- Continue D.E.A.R. time daily
- Choose a new buddy book, practice, and read to kindergarten buddy
- Monitor and encourage home to school reading program
- Plan recognition for students meeting Accelerated Reader goals

Week 6

- Continue Week 5 activities

Week 7

- Continue Week 6 activities
- Implement positive recognition of students who are reading regularly at home

Week 8

- Continue Week 7 activities

Week 9-16

- Continue implementation of existing strategies and introduction of new strategies as needed

Week 16

- Begin individual kindergarten posttest with AGS Early Screening Profile
- Begin individual third grade posttest with Woodcock Reading Mastery Revised Form H and STAR reading test

Week 17

- Continue individual kindergarten posttest with I.S.E.L.
- Continue individual third grade posttest

Week 18

- Complete all posttesting
- Compile scores
- Analyze data

Methods of Assessment

Kindergarten students will be given the AGS Early Screening Profile and the State Snapshot of Early Learning. The purpose of these tests is to determine a baseline level of readiness to read. The same tests will be used as a posttest after the strategies have been used on the kindergarten students to assess the effectiveness of those tests.

Third graders will be given the STAR reading test from Accelerated Reader and the Woodcock Reading Mastery Revised (Form G). The purpose of these tests will be to determine a

reading level for each individual third grader. Different forms of the Woodcock and STAR test will be given as posttests to determine the effectiveness of the various reading strategies.

These particular tests were chosen because they provide the necessary data on reading and readiness for our action research project, and they were readily available in our district.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The objective of the action research project was to increase the reading achievement of the targeted kindergarten and third grade students. This was accomplished through implementation of the Accelerated Reader program (AR), a buddy reading program, a silent sustained reading program (SSR), and a home-to-school reading program

The research team consisted of three persons. One researcher taught a third grade self-contained classroom; the second researcher was a learning disabilities resource teacher who supported the language program in the targeted third grade classroom, and the third researcher taught in a kindergarten classroom within the same targeted school. All students within the targeted classrooms participated in the interventions.

During the first week of intervention, the Woodcock Reading Mastery Test Revised G was administered to all third grade students in the targeted classroom. One researcher took students individually into her resource room to administer the test.

All third grade students took the STAR test to determine their zone of proximal development during the first week of the action research. The STAR test was a computer generated multiple-choice test taken individually at the computer. Once all students had taken the test, students were told their reading range and were instructed to check out

books in that reading range. Students were allowed to choose their own books within their established reading range. The students began checking out library books with guidance given by the researchers. Books in the classroom that were on the AR program were labeled, and the reading level was marked. Books were organized into labeled boxes so that students could easily determine the reading level of the book they were choosing.

Time for sustained silent reading (SSR) was established. Two 20-minute periods were allowed daily for students to read silently, check out books, or take AR tests. Students were taught the SSR rules and were given reading logs to record the book titles during each reading period. A sample of the reading log used by students can be found in the Appendix A.

When students had finished reading an Accelerated Reader book, they were expected to take a computer generated multiple-choice test on the content of the book. The students' scores were recorded in the computer program, and students were given points based on the difficulty of the book and the number of questions answered correctly. Students were given point goals based on the results of the STAR test and the amount of time they were given by the classroom teacher for silent reading.

During the first week in kindergarten, the AGS Early Screening Profile was given as a pretest. This was a screening device that showed readiness for kindergarten. It included the following subtests: verbal concepts, visual discrimination, logical relations, and basic school skills. Each of these tests was conducted on a one to one basis (teacher to student) and was administered verbally.

During the second week in the targeted kindergarten, the AGS testing was completed and the Illinois Snapshot of Early Learning (pilot test) was begun. It was

administered as a pretest to determine the students' abilities before the strategies were initiated. Also during this week, the kindergarten students were introduced to the Drop Everything And Read (DEAR) program. This strategy was implemented to expose students to books. Each day a ten-minute time period was set aside for students to look at or read books.

School rewards and classroom rewards were organized in the third grade during the second week. A classroom reward system was set up for students who passed an AR test with an 80% or higher. Stickers were put on individual charts for every AR test passed. When students passed 10 tests, they were allowed to choose prizes from the "Book Bag." When students filled the first chart, the researcher gave out coupons to a local restaurant, and students were taken there during their lunch period. School rewards were also announced for all students participating in the AR program throughout the school. Rewards were given for students who reached 25%, 50%, 75%, and 100% of their point goal. Students who reached 25% of their goal received an ice cream cone certificate from the principal. When they reached 50% of their goal, students received a free meal at Subway from the librarian. Students who reached 75% of their goal were invited to a special evening event, "Read in the Dark." Those who attained 100% of their goal were allowed to travel to the Museum of Natural History in Chicago during a school day.

The following week the ISEL testing continued in the targeted kindergarten classroom. The Accelerated Reader program was the second strategy introduced to the kindergarten students. This program began with the kindergarten teacher reading a book to the students once a week. Each student was asked five questions on a one to one basis

(teacher to student), and the students answered verbally. The objective of this program was to improve reading comprehension. The kindergarteners continued to work on D.E.A.R. time daily.

A buddy reading program between the targeted third grade and the targeted kindergarten was introduced to provide good role models for oral reading, to improve listening, and comprehension. It was also hoped to enhance the older students' reading ability. Each third grader from the targeted third grade classroom was paired with a kindergarten student from the targeted kindergarten classroom. The researcher brought books into the classroom for students to choose to read to their reading buddy. Once the students chose a book to read to their kindergarten buddies, they were given time to practice reading. They were encouraged to take it home to practice as well. The researchers spoke to the students about the importance of practicing for fluency and expression. Discussion was held about the importance of reading the book several times for adequate practice. The researchers provided demonstrations to show students what a good read aloud would look like and sound like. The buddy reading program was used throughout the intervention.

During the third week of the interventions, researchers and students discussed ways to extend the reading experiences with their kindergarten buddies. Questions to ask about the story were suggested and discussed. Students were expected to use these questions when they had finished reading to their kindergarten buddies.

Volunteers from the community began coming into the targeted third grade classroom during the fourth week of research to read with the more struggling readers during the SSR times. Volunteers were assigned to students whose reading levels, as

shown on the STAR test, were below grade level. Volunteers also asked questions about the book or helped the reader review the book before taking the AR test.

As the intervention progressed, the researchers began bringing a variety of books of different reading levels into the classroom. Book talks were given on these books to encourage interest. Students also shared books they had read and liked.

To involve parents as partners in reading and increase the amount of time that is spent reading, the researchers had planned to begin a home-to-school reading program by the fourth week of the intervention. The researchers found that with all the other interventions that were being implemented, the home-to-school program would have to be postponed. The kindergarten "Be a Star Reader" program was started during the sixth week of the intervention. A note was sent home on Fridays to be returned the following Friday with parents writing the book's title and their signature after reading 10-15 minutes to their children each evening. A sample of the "Be a Star Reader" form can be found in Appendix B. During the seventh week, information was sent home with the third graders regarding the "Read With Me Club." Students were asked to read to a parent for 10 minutes every day, and parents were asked to sign the reading star chart to document the reading time. Charts were collected at the beginning of the next week, and the researchers counted the time parents and students read together. A sample of the reading charts can be found in Appendix C. Rewards and incentives were also set up to provide excitement and motivation for reading at home. A "Read With Me Club 25" was established for students who had recorded 25 parent-student reading sessions. Students would receive a certificate and would be allowed to eat lunch in the room with the teacher one day a week.

Researchers continued to guide students on activities to do with their kindergarten buddies when they had finished reading to them. Students made flashcards of letters and sight words that the kindergarten students were working on. Students encouraged their buddies to find words they knew in the books. Buddies drew pictures of their favorite parts of the story. The kindergarteners read their letter booklets to the third graders.

The SSR time was maintained throughout the intervention. Volunteers continued to read with students as needed. Students began earning the rewards that had been set up for them and this provided motivation for other students to attain these same rewards. The researchers continued to give book talks on books that were brought into the classroom from the learning center. This activity maintained interest and assisted those who had trouble choosing books from a wider selection.

During the last two weeks of the intervention, kindergarteners began the AGS Early Screening Profile, which was used as a posttest and administered individually. The ISEL was also administered to the kindergarteners individually as a posttest.

During the last week of the intervention, the third graders were given the Woodcock Reading Mastery Test Revised H as a posttest. This test was administered individually. The third graders also took the STAR test as a posttest.

Presentation and Analysis of Results

Data was collected at the end of the action research plan for analysis and comparison with data collected at the beginning of the project. The AGS Early Screening Profile results for the targeted kindergarten students were evaluated. Sixty-four percent of the targeted kindergarten students showed an increase in the cognitive language profile

between the pretest and the posttest. Twenty-nine percent of the kindergarteners showed a decrease between the pretest and the posttest. Data may be reviewed in Table 5.

Table 5

AGS Early Screening Profile

	Percentile Rank of Targetted Kindergarten	
	Pretest	Posttest
S1	39%	63%
S2	66%	84%
S3	21%	47%
S4	68%	42%
S5	61%	97%
S6	77%	81%
S7	10%	37%
S8	61%	42%
S9	47%	92%
S10	34%	55%
S11	50%	39%
S12	50%	23%
S13	61%	82%
S14	39%	66%

The ISEL scores for the targeted kindergarten students were compared and analyzed for change. In each of the three subtests, there were meaningful gains noted. The letter recognition subtest went from 50% of the students scoring 50% or higher in the pretest to 86% of the students scoring 50% or higher in the posttest. Five of the fourteen students (36%) gained an average of 40 percentage points on the letter recognition subtest. The story listening subtest improved from 64% of the students scoring above 50% in the pretest to 79% of the students scoring 50% or higher in the posttest. Scores of two students improved by 43 percentage points and 38 percentage points. The third subtest, word recognition, changed from 36% of the students scoring 50% or more in the

pretest to 86% of the students scoring 50% or more in the posttest. Two students made a gain of 89 percentage points from pretest to posttest. Comparison of pretest and posttest data is shown in Table 6.

Table 6

ISEL Pretest and Posttest Results

Percentage of Students Scoring 50% or More

	Alphabet Recog.		Story Listening		Word Recog.	
Students	Pretest	Posttest	Pretest	Posttest	Pretest	Posttest
s1	41%	80%	95%	86%	44%	56%
s2	15%	44%	76%	76%	22%	89%
s3	50%	89%	43%	86%	89%	89%
s4	22%	59%	57%	43%	0%	89%
s5	39%	74%	52%	62%	56%	78%
s6	43%	91%	57%	67%	44%	78%
s7	83%	100%	19%	57%	67%	44%
s8	0%	7%	38%	34%	0%	0%
s9	98%	100%	67%	90%	78%	100%
s10	81%	80%	62%	67%	44%	89%
s11	72%	100%	62%	81%	11%	100%
s12	89%	100%	62%	52%	89%	100%
s13	48%	89%	48%	67%	22%	78%
s14	80%	80%	38%	38%	0%	56%

Woodcock Reading Mastery Test results for the targeted third grade students were analyzed and compared for change. One student tested prior to intervention was not posttested because that student had moved from the targeted school district. Results from the pretest showed that 26.3% of students were at the 2.5-2.9 grade equivalent range on the word identification pretest, while only 5.6% of students were at that range on the posttest. The percentage of students in the 3.0 to 3.4 grade equivalent range went from 26.3% on the pretest to 16.7% on the posttest. Students who scored at the 3.5 to 3.9 grade equivalent range increased from 10.5% to 22 %. No student scored in the 5.0 to 5.4 grade equivalent range on the pretest, but 16.7% of the students were at this level on the posttest. Word identification data is shown in Figure 1.

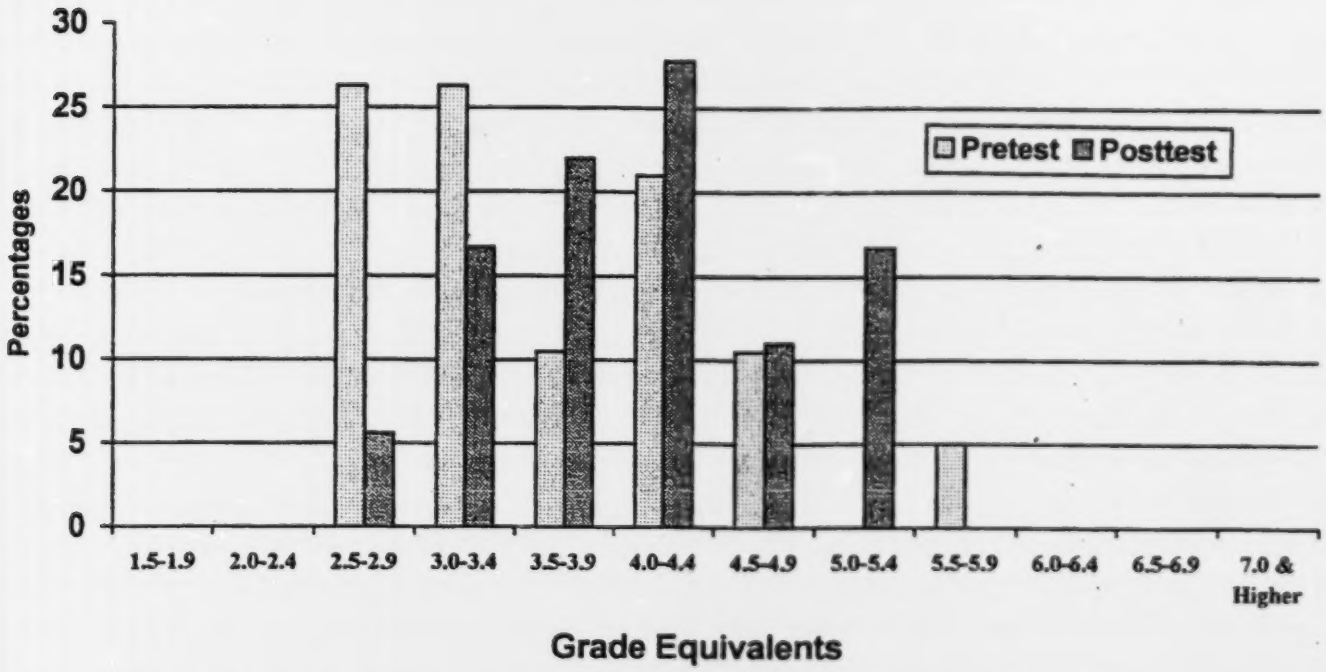


Figure 1. Comparison of pretest and posttest results of the word identification subtest from the Woodcock Reading Mastery Test.

Data from the word comprehension subtest, showed 41.6% of the targeted students were between the 1.5 and 2.9 grade equivalent range on the pretest. Posttest results showed only 11% of the students in that range. The percentage of students who began the intervention in the 3.5 to 3.9 grade equivalent range went from 15.8% to 33%. Before the interventions, 10% of the targeted class had scored above the 3.5 to 3.9 range. Posttest results showed 27.9% of the students were at this level. This data is shown in Figure 2.

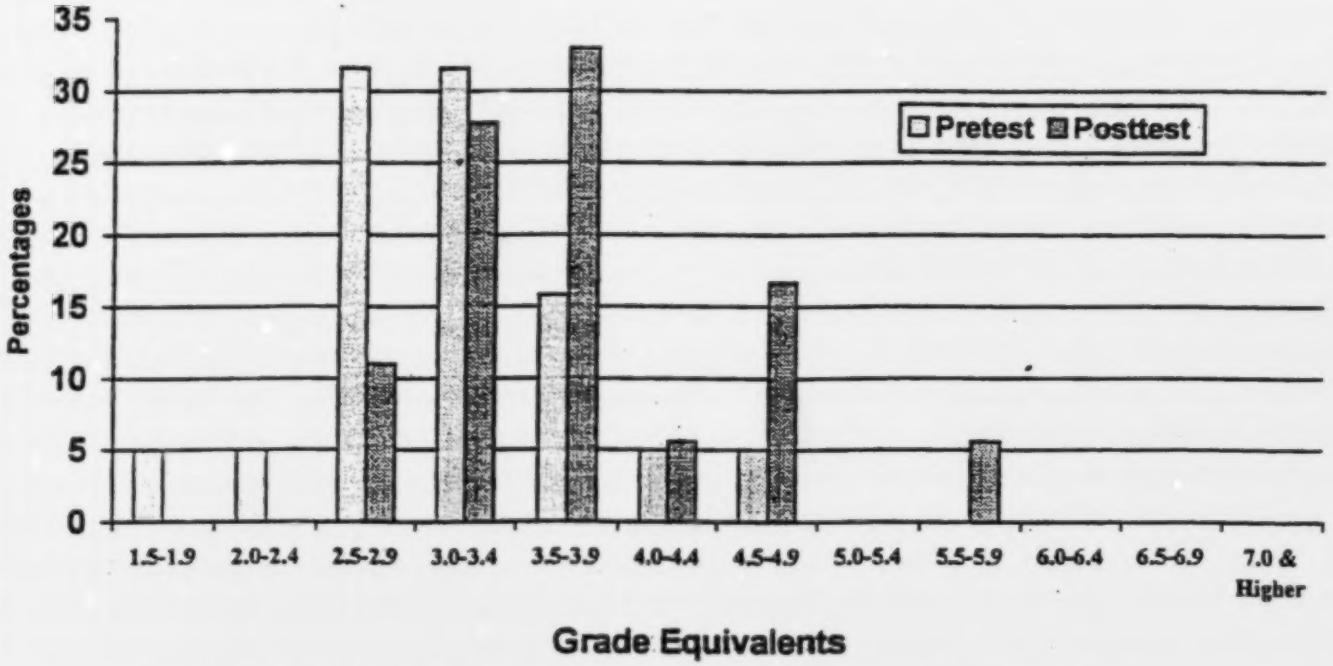


Figure 2. Comparison of pretest and posttest results of the word comprehension subtest from the Woodcock Reading Mastery Test.

The third part of the Woodcock Reading Mastery Test that was analyzed was the passage comprehension subtest. Twenty-six percent of the targeted students scored at the 2.0 to 2.4 grade equivalent range on the pretest, nearly a year below grade level. No

students scored at this level on the posttest. Pretest data showed 21 % of the class just slightly below grade level, at the 2.5 to 2.9 range. Following interventions, 5.6% of the class was in this range. In the 3.0 to 3.4 grade equivalent range, which would have indicated students reading at grade level or slightly above, the percentage of students moved from 31.6% to 50% from pretest to posttest. At the time of the posttest, 44.5% of the class was above grade level as compared to 20.5% at the time of the pretest on passage comprehension. This data can be found in Figure 3.

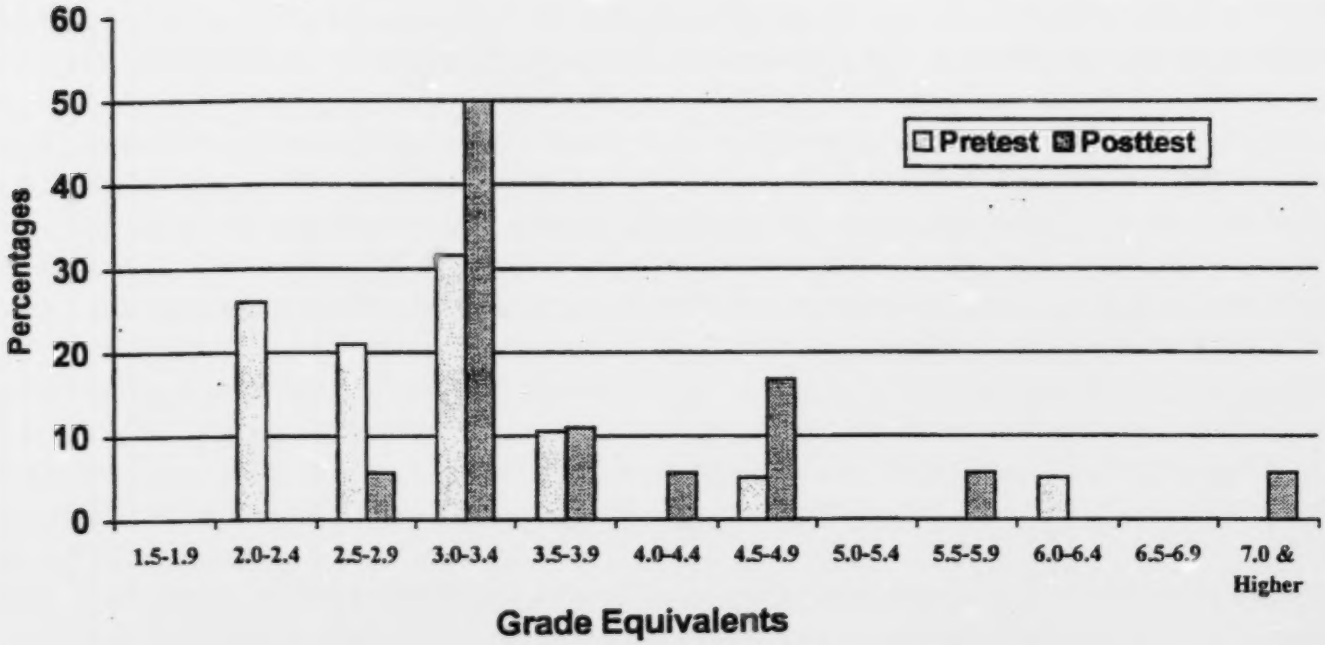


Figure 3. Comparison of pretest and posttest results of the passage comprehension subtest from the Woodcock Reading Mastery Test.

The STAR Reading test data was also analyzed and compared to pretest data. Of the students pretested on the STAR, one moved from the district during the action research. Grade placement at the time of the pretest was 3.0, and the grade placement at

the time of the posttest was 3.4. Students scored an average grade equivalent of 2.7 on the pretest. The average grade equivalent score for the posttest was 3.8. This was a 1.1 grade equivalent change during the four-month intervention period. Data showed 53% of the targeted students were reading below grade level as indicated by the STAR reading test pretest. Posttest data revealed that 16.6% of the students were now in this level. In the pretest analysis, 26% were above grade level. The posttest indicated that 55.5% were now reading above grade level. Test information is shown in Table 7.

Table 7

Star Reading Pretest and Posttest - Third Grade Scores

Percent Distribution of Grade Equivalent Scores

Grade Equivalents	Pretest % Students	Posttest % Students
1.5 - 1.9	26%	0%
2.0 - 2.4	16%	5.60%
2.5 - 2.9	11%	11%
3.0 - 3.4	21%	27.80%
3.5 - 3.9	5%	16.70%
4.0 - 4.4	5%	11%
4.5 - 4.9	11%	5.60%
5.0 - 5.4	0%	5.60%
5.5 - 5.9	5%	5.60%
6.0 - 6.4	0%	11%

One student went from a grade equivalent of 1.9 to 2.8. While still below grade level, this student showed a growth equal to 9 months. Another student moved from a grade equivalent of 1.9 to 3.1, which was nearly grade level. One student who had no record of AR tests during the previous year had taken and passed 25 tests during the action research. The average score was 87%. Another student who had only taken 1 AR

test the past year had taken and passed 21 tests by the end of the intervention, with an average of 85.5% correct. The average level of book this student was reading during the intervention was 3.4. No student had read and passed fewer than 20 books during the project. The total number of books read and passed by students during the intervention was 736, as compared to 485 during the whole previous year, a 51.75% increase.

School-to-home reading data was analyzed. One student was not allowed to participate, however he did say that he read every night for 20 minutes as part of his homework. One student who recorded 100 days of reading at home made grade equivalent gains of 1.9 to 3.1. That student also read and passed 27 AR books during this time. Another student who recorded 75 days of reading at home made grade equivalent gains of 1.8 to 4.2. That student also read and passed 43 AR books during the action research. All but one student recorded at least 25 days of reading at home.

The buddy reading program was designed to promote role modeling, increase practice, and improve comprehension and fluency. Reflections written by students documented the students' perception of the program. Several students wrote, "I learned to use expression because they listen better." One student felt that she became better at "reading out' because she used to mumble when she read. Students wrote that they liked it when their buddy listened to them read. Many students commented on the stories and how interesting they were, not just to their buddy, but also to themselves. One participant wrote, "The stories are neat because I have never read those books." Third grade students found it interesting to see what books their buddies liked. Finally, one student wrote, "I feel like a teacher! I'm thinking about being a teacher."

Conclusions and Recommendations

Increasing the reading achievement of the targeted kindergarten and third grade students was the objective of the action research. Results of the Woodcock Reading Mastery Test for the targeted third grade students indicated that students were achieving at a higher level than when the action research began. Grade equivalent levels as evidenced by the STAR test showed growth for many students. Students feel good about reading to their younger buddies, confident in their ability, and look forward to that time each week. Students spend considerably more time reading self-selected books during the school day, and consequently the total number of books read by these students is greater than had been read in the previous year. Some students increased the amount of time they spent reading outside of the classroom through the home to school program. These results indicated that the objective was accomplished.

The results of the AGS Early Screening Profile showed that there were gains and losses in the cognitive language profile. Since the purpose of the AGS is to screen to determine readiness for kindergarten, the researchers felt that this test was not an appropriate measure to be used as a pretest and posttest.

The researchers feel that the increased use of the Accelerated Reader program and the greater use of classroom time for the practice of reading self-selected material were the two interventions that contributed most to the increased achievement of the targeted third students. Since these students were, at least, somewhat familiar with the AR program, the students were quite interested in participating in the program. Using the computer to take quizzes proved to be very motivating for most students. Meeting goals and earning rewards were also incentives for students to continue reading. The

researchers suggest that a motivational reward system be established along with the use of the AR program.

The use of the AR program at the kindergarten level is not easy to implement since the stories must be read aloud to the students, and then questions must be read aloud to each student. The researchers would recommend that this program not be attempted without an aide or parent helper.

The researchers took care to build the time allowed for SSR gradually. This eased the students into the longer sessions they were expected to use for reading. The researchers recommend a gradual growth to the 40 minutes provided daily and to further break that time into two shorter sessions of at least 15 to 20 minutes each. The researchers observed a definite growth in the amount of time students could be actively engaged in reading throughout the action research. Giving the students 25 minutes or more to read during SSR is too long. The students looked forward to SSR time each day and asked for it if some other activity interrupted the usual time.

Students were given extra help choosing books. Even though students were given a reading range and were only allowed to choose books in this range, they were often overwhelmed by the choices before them. They would choose a book only to look at it briefly, say they didn't like it, and go searching for another. To improve their selection skills, the researchers gave the students having the most trouble a set of five to six books to choose from. This strategy helped to reduce the amount of indecision and the exchange of reading material. The researchers recommend a similar approach to the selection of reading material for those students who could not make appropriate choices on their own. Many students, particularly the lower ability readers, were interested in

picture books that could be finished during one session. As the action research progressed, so did the length of the books that were read. Several students who only read picture books at the beginning of the action research were reading short chapter books appropriate for their grade level by the end of the project. However, students were never discouraged from reading a picture book in their reading range.

Researchers often brought in books from the learning center to supplement the classroom library. Students' interest in the books was heightened when the researchers talked about the books. Other students were given the opportunity to tell about good books they had read. The researchers feel that allowing time for the sharing and promoting of good books helps to keep the students' interest level high.

It appeared at the introduction of the sustained silent reading program that there would be several students, especially students who were reading below grade level, who would not be engaged in actual reading. The researchers recommend that to maximize reading practice during SSR, a volunteer program be established within the classroom. The researchers had at least one, and sometimes two volunteers, reading with the students with the lowest reading levels during each SSR session. This helped to insure that the reader was on task and not simply looking at pictures and flipping through pages. The volunteers were to assist the students in improving their oral reading accuracy, fluency, and comprehension. Volunteers were encouraged to pronounce unknown words, discuss vocabulary, and ask questions as they listened to the student read. Students enjoyed reading with an adult volunteer and often asked to read with someone. The researchers recommend that this type of support to lower ability readers be given during some of the SSR time to get the most benefit for those students. Providing time during the school day

to practice reading is a productive use of time. When provisions are made to keep the reluctant reader engaged in the process, all readers can benefit from SSR.

The home-to-school program did not work as well as the researchers would have liked. The students who needed the most practice were not motivated to read with someone at home. The researchers tried to make the record keeping for parents as simple as possible, and yet the response was low. The importance and value of reading with a parent at home was discussed during parent teacher conferences, and parents agreed with the importance of this practice. Yet in the two weeks following conferences, the number of responses went down. This lack of parental support was disappointing. While the researchers feel a home reading program is necessary to make the most improvement in reading achievement, it is difficult to implement and maintain. The researchers feel that there are too many variables beyond their control to make this intervention successful.

The researchers feel that the buddy reading program was successful in motivating third grade readers to develop fluency and expression. Research has shown that increased fluency helps comprehension. Posttest scores show an increase in comprehension in the third grade students. Third grade students who participated were excited to be role models for the kindergarteners. The program helped to build self-esteem, especially in the less able readers. The researchers noticed the impact on third graders' attitudes toward reading. The researchers recommend that students keep the same buddy each session. This helps build strong relationships between the buddies. Friendships form on both sides. Third grade students helped their buddies with sight words, alphabet recognition, and story elements. The researchers would have liked to incorporate more reading activities for the buddies to do together, but the time constraints prohibited more

interaction between the kindergarten and third grade students. Several parents and teachers commented positively on the program.

The researchers feel that the interventions of the Accelerated Reader program coupled with the extended silent sustained reading time and the buddy reading program have meaningfully impacted both the kindergarten and third grade students. The entire school has been implementing the Accelerated Reader program and extended SSR. It has been obvious to the researchers that these programs have increased the reading throughout the school. Even the special education students are finding success in the Accelerated Reader program. Many students are ahead of the goals set by the AR program.

As teachers who believe that reading is the most important thing we teach, the researchers feel that it can often be an unbreakable circle for those who do not succeed initially. They do not read well, so they do not practice, so they do not read well. It is up to the school to break that vicious cycle, and the interventions that were used in this research project appear to have been effective.

References

Allington, L. Richard (1977). If they don't read much, how they ever gonna get good? Journal of Reading, 20, 57-61.

Allington, L. Richard (1984). Content coverage and contextual reading in reading groups. Journal of Reading, 16 (2), 85-96.

Anderson, R.C., Hiebert, E.H., Scott, J.A., & Wilkinson, I.A.G. (1985). Becoming a nation of readers: The report of the commission on reading. Washington, DC: National Institute of Education.

Anderson, R.C., Wilson, P.T., & Fielding, L.G. (1988). Growth in reading and how children spend their time outside of school. Reading Research Quarterly, 23 (3), 283-303.

Association of Commerce. (1999) Retrieved on February 27, 2001 from http://www.fairburyil.org

Barrentine, S.J. (1996). Engaging with reading through interactive read-alouds. The Reading Teacher, 50 (1), 31-38.

Beaston, L.R. (2000). Research on parental involvement in reading. The New England Reading Association Journal, 36 (3), 8-10.

Biemiller, A. (1977-1978). Relationships between oral reading rates for letters, words, and simple text in the development of reading achievement. Reading Research Quarterly, 13 (2), 223-253.

Block, C.C., & Dellamura, R.J. (2000-2001). Better book buddies. The Reading Teacher, 54 (4), 364-370.

Bracey, G.W. (1998). Phonics and whole language in sequence? Phi Delta Kappan, 79, 474.

Chandler, K., & Gibson, G. (1998). Making reading partners an integral part of the reading-writing curriculum. The New England Reading Association Journal, 34 (2), 3-10.

Cochran-Smith, M. (1984). The making of a reader. Norwood, NJ: Ablex.

Cullinan, B.E. (1989). Literature and the child. (2nd ed.). San Diego, CA: Harcourt Brace Jovanovich.

Cunningham, P. M. & Allington, R.L. (1999). Classrooms that work: They can all read and write. (2nd ed.). Longman.

Daniels, H., Zemelman, S. & Bizar, M. (1999). Whole language works: 60 years of research. Educational Leadership, 57 (2), 32-37.

Dixon-Krause, L. A. (1995). Partner reading and writing: Peer social dialogue and the zone of proximal development. Journal of Reading Behavior, 27 (1), 45-63.

Donelson, K. L., & Nilsen, A. P. (1989). Literature for today's young adults. (3rd ed.). Glenview, IL: Foresman.

Drecktrah, M.E., & Chiang, B. (1997). Instructional strategies used by general educators and teachers of students with learning disabilities: A survey. Remedial and Special Education, 18, 174-181.

Durkin, D. (1966). Children who read early. New York: Teachers College Press.

Durkin, D. (1974). Teaching them to read. (2nd ed.). Boston: Allyn & Bacon.

Early Screening Profiles. (1990). Circle Pines, MN: American Guidance Service.

Fulwiler, G., & Groff, P. (1880). The effectiveness of intensive phonics. Reading Horizons, 21, 50-54.

Gaskins, I. W. (1998). There's more to teaching at-risk and delayed readers than good reading instruction. The Reading Teacher, 51, (7) 534-547.

Gillet, J.W., & Temple, C. (1990). Understanding reading problems: Assessment and instruction (3rd ed). Glenview, IL: Scott Foresman.

Goodman, K., & Goodman, Y. (1979). Learning to read is natural. In L. B. Resnick & P. A. Weaver (Eds.) Theory and Practice of Early Reading: Vol. 1. (pp. 137-154). Hillsdale, NJ: Laurence Erlbaum.

Government Information Sharing Project. (n.d.). 1990 census of population. Retrieved March 9, 2001 from http://sasquatch.library.orst.edu/index.html.

Greaney, V. (1980). Factors related to amount and type of leisure reading. Reading Research Quarterly, 15, (3) 337-357.

Groff, P. (1998). Where's the phonics? Making a case for its direct and systematic instruction. The Reading Teacher, 52 (2), 138-141.

Gutherie, J. T., & Wigfield, A. (1997). Reading engagement: Motivating readers through integrated instruction. Newark, DE: International Reading Association, Inc.

Harris, K., & Graham, S. (1996). Memo to constructivists: Skills count, too. Educational Leadership, 51 (5), 26-29.

Harste, J., Woodward, V., & Burke, C. (1984). Language stories and literacy lessons. Portsmouth, NH: Heinemann.

Honig, B. (1997). Research-based reading instruction: The right way. The Education Digest, 53, 15-22.

Hoyt, L. (2000). Snapshots: Literacy minilessons up close. Portsmouth, N.H: Heinemann.

Huck, C., Helper, S., & Hickman, J. (1987). Children's literature in the elementary school. (4th ed.). New York: Hall, Rinehart, Winston.

Huey, E. B. (1968). The psychology and pedagogy of reading. Cambridge, MA: MIT Press.

Illinois Snapshot of Early Literacy. (2001). (Pilot test). Springfield, IL. Illinois State Board of Education.

Ivey, G. (2000). Redesigning reading instruction. Education Leadership, 58, (1), 42-45.

Johnson, T. D., & Louis, D. R. (1990). Bringing it all together: A program for literacy. Portsmouth, NH: Heinemann.

Kragler, S., & Nolley, C. (1996). Student choices: Book selection strategies of fourth graders. Reading Horizons, 36, 354-65.

Lapp, D., & Flood, J. (1997). Where's the phonics? Making the case (again) for the integrated code instruction. The Reading Teacher, 50 (8), 696-700.

Lee-Daniels, S. L., & Murray, B. A. (2000). DEAR me: What does it take to get children reading? The Reading Teacher, 54 (2), 154-155.,

Mass, L. N. (1982). Developing concepts of literacy in young children. The Reading Teacher, 35 (6), 670-75.

Manning, G. L., & Manning, M. (1984). What models of recreational reading make a difference? Reading World, 23, 375-380.

Moore, J. C., Jones, C. J., & Miller, D. C. (1980). What we know after a decade of sustained silent reading. The Reading Teacher, 33 (4), 445-450.

Morrow, L. M. (Ed.), (1995). Family literacy: Connections in schools & communities. New Brunswick, NJ: International Reading Association.

Moser, G. P., & Morrison, T. G. (1998). Increasing student's achievement and interest in reading. Reading Horizons, 38 (4), 233-245.

Palmaffy, T. (1997). See Dick flunk. Policy Review, 86, 32-40.

Paul, T. D. (1996). Patterns of reading practice. Madison, WI: Institute for Academic Excellence.

Poock, M. M. (1998). The accelerated reader: An analysis of the software's strengths and weaknesses and how it can be used to its best potential. School Library Media Activites 9, (19), 32-35.

Prairie Central School District #8. (2000). Illinois school report card. Forrest, IL: District Office.

Routman, R.. Invitations: Changing as teachers and learners K-12. Portsmouth, NH: Heinemann.

Samuels, S. J. (1988). Decoding and automaticity: Helping poor readers become automatic at word recognition. Reading Teacher, 41, 756-760.

Samuels, S.J. (1978). What research has to say about reading instruction. Newark, DE: International Reading Association.

Slavin, R. E., & Madden, N. A. (1989). What works for students at risk: A research synthesis. Educational Leadership, 4-13.

Stanovich, K.E. (1986). Matthew effects in reading. Reading Research Quarterly, 21, 360-406.

Teale, W. H. (1981). Parents reading to their children: What we know and need to know. Language Arts, 58 (8), 902-912.

Teale, W. H. (1984). Reading to young children its significance in the process of literacy development. In H. Goelman, A. Oberg, & F. Smith (Eds.), Awakening to Literacy (pp. 110-121). Exeter, NH: Heinemann.

Tharp, R. & Gallimore, R. (1985). Rousing minds to life. New York: Cambridge University Press.

Topping, K. J., & Paul, T.D. (1999). Computer-assisted assessment of practice at reading: A large scale survey using accelerated reader data. Reading and Writing Quarterly, 15 (3), 213-232.

Topping, K. J., & Paul, T. D. (1999). Reading comprehension: Academic achievement. Reading and Writing Quarterly, 15 (3), 213-219.

Truscott, D. M. (1996). Organize to motivate. The New England Reading Association, 32 (2), 17-21.

Tunnell, M., & Jacobs, J. (1989). Using real books: Research findings on literature-based reading instruction. Reading Teacher, 42, 470-477.

U. S. Department of Education. (2001). No child left behind.

Wan, G. (2000). Reading aloud to children: The past, the present and the future. Reading Improvement, 37 (4), 148-160.

Watkins, M. W., & Edwards, V. A. (1992). Extracurricular reading and reading achievement: The rich stay rich and the poor don't read. Reading Improvement, 29, 236-242.

Weaver, C., Gillmeister-Krause, L. & Vento-Zogby, G. (1996). Creating Support for Effective Literacy Education. Portsmouth, NH: Heineman Publishing.

Wharton-McDonald, R., Rankin, J., Mistretta, J., & Ettenberger, S. (1997). Effective primary-grades literacy instruction=balanced literacy instruction. The Reading Teacher, 50 (6), 518-521.

Woodcock Reading Mastery Test. (Rev. G, H). (1987). Circle Pines, MN: American Guidance Service.

Appendices

Appendix A
Student Reading Log

Name _____

MY READING LOG

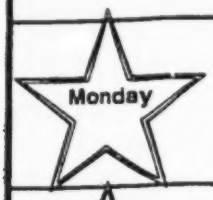
Date	Author	Title	Pages

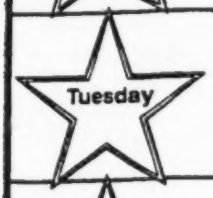
Appendix B
"Be a Star Reader" Form

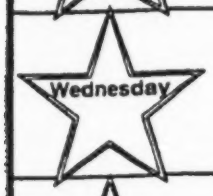
Be A Star Reader!

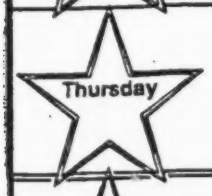
Name _____ Week of _____

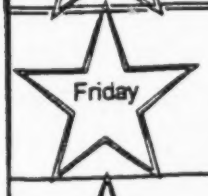
Write the title of the book read. Then have your parent sign in the appropriate space.









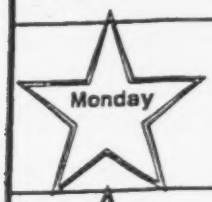


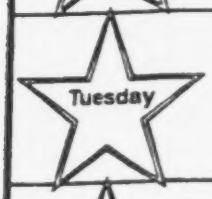
Appendix C
Reading Star Chart

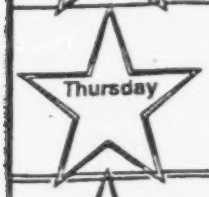
Be A Star Reader!

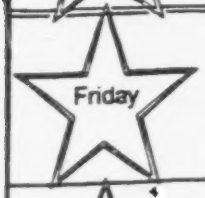
Name _____ Week of _____

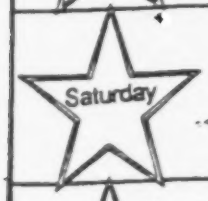
Color the star each day that you and your parent read together.
Then have your parent sign the appropriate space.











U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE

CS 511 592

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: Improving Reading Achievement Through the Use of Multiple Reading Strategies

Author(s): Barsema, Michelle, C.; Harms, Louann E.; Pogue, Carol A.

Corporate Source: Saint Xavier University

Publication Date: ASAP

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

[X]

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

[ ]

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

[ ]

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: Carol A. Pogue Michelle C. Barsema Louann E. Harms

Printed Name/Position/Title: Student/FBMP

Organization/Address: Saint Xavier University
3700 W. 103rd St. Chgo, IL

Telephone: 708-802-6219 FAX: 708-802-6208

E Mail Address: cranne!1@sxu.edu Date: 4/25/02

(over)

William Crannell, Ed.D.

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, *or*, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

ERIC/REC
2805 E. Tenth Street
Smith Research Center, 150
Indiana University
Bloomington, IN 47408

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: info@ericfac.piccard.csc.com
WWW: http://ericfacility.org